

► New approaches to enhance innovation and creativity

Rafael Giacomassi, March 2013

Background

Nowadays, innovation is a popular word in our vocabulary. Nevertheless, a clear understanding of what this term means and why it's so important in the present economy is needed before exploring alternatives to enhance it. Essentially, innovation is the usage of new ideas to develop and implement new processes, products, services, or even business models. Therefore, an idea of a particular individual has to be shared into an organization so the vision can be transformed in actions that will lead to innovation.

As globalization has strengthened business competition, companies are obligated to innovate continually to assure their position in the market (Björk & Magnusson, 2009). To illustrate this fact, Steven Johnson (2010) comments that the development of new communications technologies in the twentieth century, such as cell phones, personal computers, and GPS navigation devices, was governed by the 10/10 rule. This rule states an innovation needed ten years to be built and another ten to reach a mass audience. On the other hand, inventions from the twenty-first century, for example YouTube, have taken two years to be developed and spread around the world. This new pattern can be understood as the 1/1 rule. As a result, it is essential that companies create systems to transform ideas in innovations quickly and efficiently.

Innovation depends on ideas; insights that must not only be idealized by individuals but also shared through the organization. According to Björk and Magnusson (2009), when we exchange ideas, we develop a shared technical knowledge. We enhance creativity and innovation as a consequence. Therefore, the sources of ideation in companies today have been expanded from the traditional

research and development (R&D) departments to all organizational stakeholders.

As more people communicate with each other, more ideas are formed and innovation prospers. For instance, researchers found that "a city that was ten times larger than its neighbor was not ten times more innovative; it was seventeen times more innovative" (Johnson, 2010, p. 9). It's critical that we create environments and tools that promote idea generation and the free flow of information that fosters innovation.

Approaches from the 21st century

Companies now consider innovation extremely important. Many tools and alternative approaches have been created to enhance innovation and creativity in the organizational environment. Two examples of these approaches introduced in the 21st century are the Agile System Engineering practices and the Business Model Canvas.

Agile System Engineering was introduced by the agile manifesto in 2001. Initially, this manifesto lead to the introduction of many methods, tools, techniques, and best practices in the software engineering field. Some of these methods included extreme programming (XP), scrum, lean software development, feature-driven development (FDD), and crystal methodologies (Dingsøyr, Nerur, Balijepally, & Moe, 2012).

The Business Model Canvas was created based on Alexander Osterwalder's work on business model ontology from 2004. The Canvas describes the interrelationship among the key elements that generate value for a business, similar to traditional business models. However, this methodology allows dynamic changes, which enable the company to adapt

itself to the environment quickly (Sousa, Manso, Costa, & Almeida, 2012).

In short, both approaches promote innovation and creativity, yet it is still important to understand how those methods accomplish it.

Agile System Engineering practices

Agile System Engineering practices enhance innovation in projects where the level of uncertainty is high by following the four core principles of the agile manifesto. First of all, agile system engineering practices depend on small teams that usually use visual tools (such as posters and sticky notes) to create an extremely collaborative workspace. Second, “lean” principles are constantly used, so a document is created only if it is absolutely essential. Third, stakeholders, especially the project sponsor, are encouraged to participate in the development process. Lastly, the use of statistical or others means to control the process is needless because uncertainty is considered an intrinsic variable of the project (Dingsøy et al., 2012).

Therefore, Huang, Darrin, and Knuth (2012) state that “agile systems engineering exploits the role of momentum to allow innovation in the development process while allowing risk interactions to be managed in a disciplined way”. In other words, these projects are able to address extensive periods of uncertainty and regular changes, consequently enhancing innovation and creativity.

The Business Model Canvas

Business Model Canvas, in turn, is a business model framework that allows an overview of the business` main points. It facilitates comparisons between different versions of the business plan and quick changes to it. The key elements of the business are allocated in nine building blocks - customer segments, value proposition, customer channels, customer relationship, revenue streams, key activities, key resources, key partners, and cost structure - as shown in figure 1 (Ehrenhöfer & Kreuzer, 2012). Therefore, as noted by Sousa et al. (2012), the

Business Model Canvas is a dynamic business model capable of being changed and improved upon every day, thus stimulating innovation.

Discussion/Analysis

When we analyze the methodologies mentioned earlier, it is notable that both approaches enhance innovation and creativity. They establish environments where communication is facilitated. Using visual tools, both agile system engineering and the Business Model Canvas create environments that facilitate the exchange of information. They form idea networks that allow ideas to grow and become innovation. In conclusion, companies must incorporate similar methods in their operations so they can continually innovate in order to generate competitive advantage.

Even though such techniques have been successfully used in companies, they are still relatively new, and as such, can be developed and expanded. Future research should investigate new ways to increase communication in business environments, as well as other factors that lead to innovation and creativity improvement. For example, the development of tools to capture ideas from social networks could be valuable for companies to include customer’s thoughts in innovation processes. Moreover, any research about this topic is valuable to encourage companies which still use old methods to adopt alternative approaches, to enhance innovation as part of their business strategy.

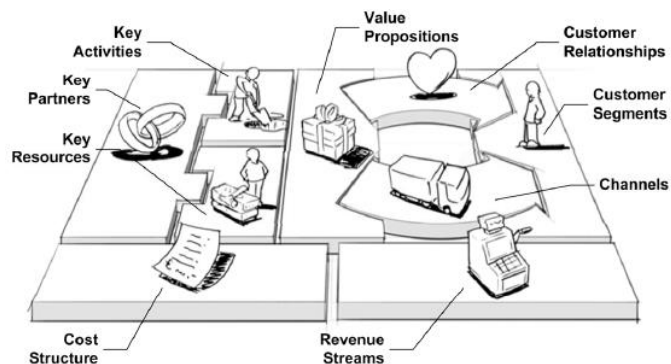


Figure 1: Business Model Canvas (Ehrenhöfer & Kreuzer, 2012, p. 287).

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Rafael has lived in Brazil, The United States of America and Canada, and has traveled to 12 different countries over the past few years. These international experiences give him the ability to adapt to new and challenging situations. Working, living and traveling abroad have made him insightful, sensitive to cultural differences and a global citizen.

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