Chapter 5
Defining E-Novation in Action

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ABSTRACT

Managing product development in an efficient manner is considered a crucial element for a company’s survival in today’s world. Current markets usually consist of highly fragmented segments of customers looking for customized and differentiated products at lower costs. Intense competition has also pressured companies to launch the products faster to the market in order to reap the planned benefits. Usage of collaborative Web-enabled models for innovation and product development, what we refer to as E-Novation, has become more popular as a result of responding to the aforementioned challenges. From technological point of view, the E-Novation models are particularly enabled through collaborative Web solutions, Web 2.0 tools, and Web-based virtual worlds. This chapter deals with the application of such collaborative Internet-based technologies in the product development and discusses their use in various stages of product development process; from idea management to prototyping. Based on existing literature in the area, the analysis of four cases (Dell, InnoCentive, Ponoko, and Implenia), participant observation and experience with such applications and semi-structured interviews with both managers of such projects and the projects’ stakeholders, this chapter demonstrates that new organizational models and skills are required to manage interdependencies internally and externally in collaboration through E-Novation. It also provides some insights about the future trends and opportunities in this era and guidelines for successful implementation of these technologies in reality.

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INTRODUCTION

Managing the product development in an efficient manner is considered a crucial element for a company’s survival in today’s world. Current markets usually consist of highly fragmented segments of customers which are looking for customized and differentiated products at lower costs. The intense competition has also pressured companies to launch the products faster to the market in order to reap the planned benefits. Usage of collaborative web-enabled models for innovation and product development, what we refer to as E-Novation, has become more popular as a result to respond to the above mentioned challenges. From technological point of view, the E-Novation models are particularly enabled through collaborative web solutions, Web 2.0 tools and web-based virtual worlds.

In this chapter, our aim is to explain the current application of collaborative internet-based technologies in the product development and discusses their use and limits in various stages of product development process; from idea management to prototyping. Based on existing literature in the area, the analysis of four cases (Dell, InnoCentive, Ponoko and Implenia), participant observation and experience with such applications and semi-structured interviews with both managers of such projects and the projects’ stakeholders, this chapter demonstrates that new organizational models and skills are required to manage interdependencies internally and externally in collaboration through E-Novation. We also provide some insights about the future trends and opportunities in this era and guidelines for successful implementation of these technologies in reality.

BACKGROUND

Two of the major trends shaping the business landscape today include the increasing consumer expectations and the growing role of the internet in structuring economic transactions (Oliver Young, 2008). Maturity of traditional markets and the global competition have lead to erosion of the margins for established products. This has put increasing pressure on companies to diversify and to innovate for specific needs of the customers to meet their expectations and maintain profitability. Innovation and new product development, thus, have become the corner stones of competitive advantage across diverse industries.

The last decade has also witnessed the rise of the internet to the center of economic activity. In today’s business environment, many business processes, information flows, and economic transactions in product development are moved over to the internet, reducing costs, increasing speed, and multiplying the available options for offering and receiving the products or services to both firms and consumers (Buyukozkan, Baykasoglu & Dereli, 2007). The adoption of internet based technologies has been a response to one of the challenges companies face today, especially in the area of innovation management and capability creation, which is to capture, use and effectively manage the fragmented sources of knowledge which exist inside and outside their value chain (Grant, 1997).

The two major trends of innovation and use of internet are at last converging to fuel the rise of web-enabled innovation. This new phenomena is enabling companies to significantly sharpen their innovative capabilities by having more direct, cheap, and universal access to consumers, innovators, and innovative ideas. Web 2.0, the amalgam of technologies that has significantly increased the interactive capabilities of the internet, is reinforcing what we here refer to as E-Novation significantly. Increasingly companies are using the internet to innovate more efficiently through virtual concept testing, “listening in” to customer discussions on web forums, online focus groups, online feedback methods, and online markets for designs and solutions, among others (Buyukozkan, Baykasoglu & Dereli, 2007).
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