

# Chapter 1

## Business Strategies and Disruptive Technologies: An Overview Within the Disruptive Innovation Theory

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### ABSTRACT

*This chapter presents key issues taken from the review of existing literature on disruptive technologies and their importance for successful business strategies. The review is done within the framework of the disruptive innovation theory. The chapter covers an historical overview of the topic from the precursors to the most recent developments as well as an analysis of its predictive side. It also finds out whether the theory allows for the development of business models. Last section is devoted to the identification of strategies that are applicable in technological disruptive innovations and discusses relevant issues to develop such strategies. Disruptive innovations are widely recognized as key engines for competitive advantage, so it is important for companies to recognize the opportunities that emerge from developing disruptive technological innovations.*

### INTRODUCTION

In the mid-1990s, the winds of change blew with great force and intense competition, even threatening some of the strongest companies, according to Clayton M. Christensen, a professor at Harvard Business School who is now considered one of the world's main experts in innovation and growth. In his 1997 book, *The Innovator's Dilemma*, Christensen provided an explanation for the failure of respected and well-managed companies. Good managers are faced with a dilemma, he argued, because by doing the

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same things they need to do to be successful (listening to customers, investing in the business, and creating distinctive capabilities), they run the risk of ignoring rivals with “disruptive innovations.”

Some innovations have the potential to disrupt the competition’s products and services market, while others maintain the competitive position of established companies, making it possible for new participants to identify business opportunities and opportunities for creation via disruptive innovation (Hang et al., 2015). Disruptive innovations (DIs) are addressed in numerous research contributions, product contests, and advertisements. They carry a high risk of failure and they often require a lot of investment in research and development (Watty., 2013). Another important aspect to consider is that in the context of the globalization of innovation, many companies have begun to travel this disruptive innovation path, which involves a series of possible underlying mechanisms such as new business models, incentive systems, and cost structures (Christensen & Bower, 1996).

On the other hand, it is important to point out that disruptive innovation (DI) allows businesspeople and entrepreneurs with limited resources to use this type of innovation that is not commonly applied by the companies already established in the market, promoting business initiatives to fight against poverty in an effective way, producing and offering simpler, smaller, and cheaper products at a payable price, as in the case of the study carried out in the Chinese city of Yiwu (Si et al., 2014), where entrepreneurs with limited resources successfully applied DI.

In this context, and with the goal of offering a reference framework for the literature relating to technological innovations from the perspective of disruptive innovation theory, this chapter aims to show the process this theory has followed, as well as its usefulness for identifying strategic aspects and opportunities related to R&D in the field of disruption; with the understanding that disruptive technological innovations have a broad scope of action not only in the academic world, but also in business.

This chapter is organised as follows: the first section presents the historical perspective of the theory, showing its evolution, an overview of disruptive technologies, some key characteristics of disruptive innovation, some recent examples, contributions of other researchers and as well as three main actors of disruptive technology under disruptive innovation. In the second section, the predictive value of the theory is analysed and the third section shows if disruptive innovation allows for the development of business models. Section fourth deals with the strategies that can be used in the DI world and some issues to develop successful strategies. Lastly, in the fifth section, some final remarks on the elements presented in this chapter are put forward.

## **HISTORICAL PERSPECTIVE**

### **The Journey to Disruptive Innovation**

The DI theory presented by Christensen (1997, 2006; Christensen & Bower, 1996; Christensen & Raynor, 2003) was developed on the basis of a series of prior studies on technological innovation. Its precursors include the work of economist Joseph Schumpeter (1942): the upheaval of business competition has often been compared to a stormy sea (‘gales of creative destruction’), which periodically sweeps away industries, sinking weak and old-fashioned companies (Yu & Hang, 2010). Figure 1 summarizes publications of disruptive innovation theory from 1942 to 2003.

When Christensen successfully studied businesses whose fortune had declined, he discovered a category of companies that collapsed or suffered a decrease in their success when they were overtaken

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