



# THE INNOVATOR'S DILEMMA

by Clayton M. Christensen



## Overview

There are 2 main types of innovation: sustaining and disruptive technologies. Sustaining technologies make incremental advances in existing markets, while disruptive technologies redefine brand new markets. Yet despite the profit available from disruptive technologies, large companies have a significantly difficult time innovating them. Disruptive technologies often thrive in newer, smaller markets with smaller profit margins, managers must act with incomplete information, and resources must be allocated to potentially disastrous projects. This book defines disruptive technologies and offers insights into how they have shaped businesses in the past, and how businesses today can get on the cutting edge.

### Chapter 1. How Can Great Firms Fail? Insights From The Hard Disk Drive Industry

In business, there are often two types of innovations: innovations which sustain an existing market or product, and disruptive innovations. Sustaining technologies occur often while disruptive ones are much rarer. For example, in the hard drive industry, many companies did not work on developing a product until there was clear demand, and yet many firms failed due to disruptive technologies like flash memory.

### Chapter 2. Value Networks And The Impetus To Innovate

*"The concept of the value network – the context within which a firm identifies and responds to customers' needs, solves problems, procures input, reacts to competitors, and strives for profit – is central to this synthesis."*

Companies often wait until there is a clear use case and demand before starting to develop a product. Companies base the perceived importance of technologies based on the values they hold. If a disruptive technology does not fit within their existing

values, they will avoid pouring cash into it. For example, the manufacturers of mainframe computers expect 50%-60% profit to account for the overhead of development. Thus, if a project only had a potential 20% return, it would not meet their values. For disruptive technologies, an established firm often develops it first. They then test it with their primary customers, and new startups begin building themselves around such technology. The other established firms then rush in to develop it for *their* primary customers, to avoid losing customers to competitors.

Many companies, for example, avoided developing flash memory, as it did not match their existing value networks, and was only seen as useful for smaller devices such as phones. Companies use their past experience with their existing technology to decide if a technology is worth it. If they can't see how a disruptive technology would work with their existing product line, they will often avoid developing or adopting it.

Companies are very particular about only dedicating resources to something that will visibly turn a massive profit in the long run for their market. This mindset causes established firms to struggle with new disruptive technology. They focus all their efforts on their current customer base and instead allow smaller companies to take the risk with disruptive technology.

### Chapter 3. Disruptive Technological Change In The Mechanical Excavator Industry

*"Over its history, leading firms have successfully adopted a series of sustaining innovations, both incremental and radical, in components and architecture, but almost the entire populations of mechanical shovels manufactures were wiped out by a disruptive technology – hydraulics."*

Leading firms often develop *sustaining* innovations instead of *disruptive* innovations. For example, mechanical excavators all fell to a single disruptive technology: hydraulics. The leaders in the industry had survived the jump to gasoline powered machines, and

