THE FUTURE OF TECHNOLOGY MANAGEMENT AND THE BUSINESS ENVIRONMENT (BOOK REVIEW)

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Book details
Author: Alfred Marcus
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Title: The Future of Technology Management and the Business Environment
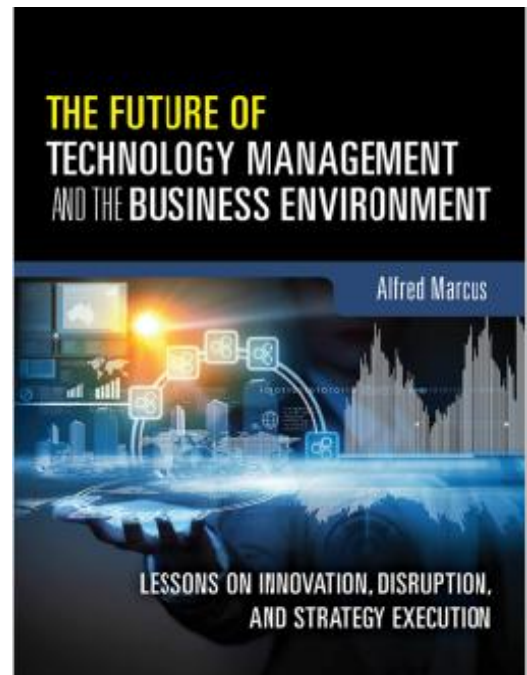Subtitle: Lessons on Innovation, Disruption, and Strategy Execution
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The goal of this book is to allow readers to learn about forecasting and strategic actions from the experience of various companies and about how technological innovation can impact businesses both positively and negatively. This book is written from the perspective of an expert with over thirty years of experience in writing, teaching and consultancy in the fields of business strategies, ethics and technology. We have chosen the book written by Alfred Marcus because it approaches topical issues that have an impact on those interested in the state of IT in the business environment, taking into account the fact that organizations nowadays need to become very efficient and effective in terms of strategies regardless of the economic, political or technological pressure.

The book was published in 2016 by Pearson Education Inc. and speaks about the projection and strategic actions necessary for IT, and also presents the stories of several companies as well as how they confronted issues related to technological innovation. The book is divided into four parts: Technology and Strategy, Managing Danger, The Environment of Technology and Coping with Technological Disruptions, and includes 13 chapters.

The first part of the book is about the state-of-the-art technology that could support economic growth in a post-industrial world and about how business organizations can manage uncertain results. The book tells us about IT, which is seen as paramount to economic growth, as it provides the necessary know-how to convert manufacturing facilities to goods and services, ensures an efficient division of labour, boosts productivity and allows capital accumulation. Furthermore, IT helps disseminate knowledge around the world quickly, leading to the growth and development of virtual communities. As a result, the information revolution transformed the way in which people learn, communicate, travel and socialize.

The second part of the book approaches unforeseen consequences and the necessity of danger management. Initially, it is about two major industrial accidents and about petroleum discharge into deep waters. Then, the book discusses the unpleasant events following the introduction of the new medical technologies, namely Merck Vioxx and Johnson and Johnson for metal-on-metal DePuy hip replacement. The book tells us that in both cases, despite strong warnings, these companies failed to inform their patients about potential risks and dangers, therefore patients suffered huge loss, and both companies were sued and had to indemnify the victims and pay large fines, consequently their reputation was also harmed.

We will make here a parallel to the claim of Raynor and Ahmed (2016) that plane pilots know the phrase that take-offs are optional but landings are always compulsory. This means that regardless of how fast, high or far we fly, we will have to come back down, and gravity will always win. These authors believe that the same goes for companies' performance, because the only certainty for which a company will have good outcomes is that eventually it will also have bad outcomes. This chapter of the book dealt with the analysis of liability laws related to the two cases and its evolution towards severe punitive actions and strict liability actions, especially because organizations often face dilemmas concerning dangerous technologies.

The third part of the book highlights the manner in which business organization responded to the challenges in the following three global divisions: the young and elderly, the rich and poor, and the abundance and energy deficit. Thus, the book tells us that these fractures are among the most important characteristics of the business environment and affect worldwide security, inequality and durability. Moreover, the book sustains that a change in economy and the evolution of job markets led to the creation of technologies important to young people, which gave birth to a significant population segment who no longer have traditional jobs but work at home and are independent.

The book shows that inequality generated a series of opportunities for companies worldwide. For instance, on the one hand there are unlimited opportunities of developing technologies serving the rich in protecting their own wealth and in showing their position

in society. On the other hand, there are possibilities of developing technologies to improve the life of the poor by offering them better houses, more drinking water, enhanced access to healthcare services, better nutrition, jobs and business opportunities. In its last part, the book presents case studies regarding what companies should do further on and describes how companies confronted technological disturbances, how companies dealt with them and the challenges they faced related to threat management in their own business.

According to the book, most of these companies became pioneers in the IT revolution, brought innovation or contributed to the placing on the market of the microprocessor, PC, e-commerce, electronic products sale, as well as to the creation of Internet content. These companies refer to Intel and AMD, Dell and Acer, Barnes & Noble, Amazon, Best Buy, Charles Schwab, Disney and Time Warner. Furthermore, the book presents the second wave marked in the IT revolution by the increase in digitalization, technology mobility, the passing to smartphones, tablets and the increase in the trust in Cloud.

The book gives the examples of Barnes & Noble and Amazon, which explore the issue of the decreasing profit and income of affiliates in the light of the increase in digital devices, such as changes related to people's reading habits and practical habits of affiliates. As we have seen, the book claims that the new technologies have a great potential in addressing the challenges faced by our society, especially considering the contemporary gap between the young and the old or between the poor and the rich. IT can tackle these issues in a constructive way, given that, in the long run, technological advancements such as innovations or knowledge accumulation lead to economic growth. Schumpeter (2011) found the following to be both a fact and a threat: the impact of new technologies on the existing structure of an industry significantly reduces its long-term objective, as well as the importance of the practices that aim to maintain established positions by restricting production, and to maximize the resulting profits.

We found that at the same time, the book discusses the invisible face of innovation, which poses a series of risksin the decision-making process, because such advancements may prejudice the individuals in the labour market if human beings start being replaced by new technologies.

DeVos (2001) has similar views on the fact that, while technology helped increase the standard of living of many people, it also altered the quality of life in ways that are less than desirable, in the sense that mass production facilities dehumanize their employees, many of whom feel alienated from the community, from God or from nature. Since people have to obey the machines, instead of the other way around, they end up feeling that machines hold a tyrannical power over them. On the other hand, Hitt *et al.* (2005) believe that developments in IT are an ongoing, ever-increasing process and that the competitive potential of IT can be tapped into by any organization, regardless of its size; meanwhile, Reynolds et al. (1999) claim that entrepreneurship and innovation are the core of the creative process in the economics and the promotion of growth, in the increase of productivity and in job creation.

Schumpeter (2011) and Allen (2002) reinforce this idea, pointing out that various tools are needed to protect the new products and technologies. Such tools include patents

and temporary trade secrets, whose purpose is to safeguard business investments – otherwise, we would find ourselves "shooting" at targets that are not clear.

As one can easily see, the book deals with a contemporary and topical subject, aiming at generating new perspectives and thoughts on innovation, technology management and the business environment for CEOs, managers, practitioners and students alike. As far as practical applications are concerned, the book shows us some of the most important issues of technology management in the future and of the business environment, offering valuable lessons in innovation and strategic execution.

In closing, we can say that businesses should develop flexible strategies in all operational fields, in order to address changes in their environment (Hitt *et. al.*, 2005), and what we can learn from the failures of these companies is that there will always be risks and we always need to take justified risks, because we can never play at random. We need to know how we will be able to manage risks so that one failure does not take out of the game forever, and the biggest risk in life is the refusal to take a risk (Gordon, 2012).

The book contains elements that can benefit both students and practitioners, as well as everyone who has ever faced IT issues and novices alike. In his work, the author covered topics related to IT, business strategy, innovations and trends on innovation. The book is logically structured, providing an in-depth, complex and synthetic approach on its subject matter. It is divided into four chapters, in which the author gives readers the opportunity to grasp both the positive and the negative side of IT.

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