

but also for future analysis. In addition to the success of space launches is the face of the country and its prestige in the international arena, so this theme will only grow.

This book is written in plain English and will prove to be an interesting read even for an untrained reader. All terms and specific points are explained by the author with relevant examples.

Many of the examples and evidences given by the author's are backed by illustrations and graphs. The data were taken from official sources and various space agencies. However, it should be noted that the data are only for the USA and the European Union and do not reflect the state of the space industry in Russia, which is one of the major players in the space sector.

There could be a social aspect that emerges after a better disclosure and presentation of the subject. Consequently, the choice of the

direction of space programs could also depend on the needs and demands of society.

This book is well structured. Each chapter consists of an introduction and a theoretical part and then provides the basics of engineering/financial/economic foundations. Examples of space programs act as reinforcement. All terms and specific moments are described and supplemented with examples.

The topic of the book is quite specific. The authors have discussed many aspects of a space program. There are studies of the space program, but they see only one or a small number of components. We can say that the author has completed a unique modular analysis.

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Forethought in designing corporate strategy

Frederick Betz
Strategic Thinking: A Comprehensive Guide, Bingley (UK)
Emerald Group Publishing Ltd
xi + 355 p. (with Index), £40.
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A specialist in the management of research, Professor Betz advances a ten-chapter thesis on thinking ahead, ranging from vision and venture to “dishonor” in long-term planning. After a concise preface, in which he introduces his theoretical principles of strategy, he launches into well-constructed chapters to illustrate each functional value.

The chapters of the book are well-conceived and explicit. The vision chapter, for example, begins

with a diagrammatic scheme of how decision theory applies:

present status → tactical means → ends & values → outcome.

The chapter continues with a case study, specifically the origins and development of the Sony Corporation (a classical example of innovation beginning from scratch) and of Mitsui & Co., a major trading firm in Japan. Both companies have consistently displayed this vision:

preparation + perception + commitment.

The author stresses the broad outlook and sensitivity of such firms toward competition, ending the chapter with a very brief summary of what has been presented, together with a short list of the chapter's theoretical principles.

Author Betz, who teaches research management at the 25-campus Penn State University, then examines venture and its risks, with a case study of Cisco Systems and the history of the creation of the internet, whose original aim was to connect American universities involved in research for the military. A short retrospective follows on research timelines from the early internationalization of science in the 1600s until today's preoccupation with the evolution of financing the globalization of innovation.

More case histories

In a chapter on strategic management, the author resumes his analysis of the decision processes applied in the functioning of Cisco Systems, a major service firm exploiting the information and communication technologies. He ends this chapter on a cautionary note: even the most successful entrepreneurial management must finally cede to "professional" or structured managerial control. In the chapter after, on strategy theory, The volume's longest action, Betz proposes 10 "schools" of the theory of strategy. These range from design, planning and positioning of products to cultural, environmental and productivity-configuration modes. He continues his analysis of strategy theory with a careful reconstruction of the Steve Jobs-Apple Computer relationships. Their "big picture" emerged in two dramatic yet separate sequences.

In a chapter headed "Standard Business Model", analyst Betz recalls the intense rivalry that developed between Ford and General Motors (GM), from the conception of the Model T and Ford's commitment to a minimum wage until GM's heyday before and after the Second World war. The

author's account is reminiscent of the explorations made on this subject by another perceptive analyst, Austrian-born Peter Drucker.

The sixth chapter deals with diversification strategy, highlighted by the decline of GM as a case history. The auto giant's diminishing performance resulted from insufficient diversification via innovation, acquisitions, surviving economic cycles or improving coverage of markets. Betz also explains the stock-market valuation of a business, noting further that diversification may entail "opportunity costs" to be met to diversify and remain competitive or better.

"Strategy Scenarios" heads the next chapter: (a) explaining, again, the busy international venturesomeness of Japan's House of Mitsui and (b) describing the unfettered product explorations of the 3M corporation. (Your reviewer once asked a research chemist at 3M what his colleagues had found as the most effective laboratory solvent. Expecting the announcement of a magical hydrocarbon of an unknown sort, the chemist's reply resounded with only one word: Water!) Reliable scenarios may become operational forecasts for new trends in developing products or services. Japanophile author Betz evokes once again, in the succeeding chapter, the House of Mitsui and how it learned to shift gears as societal transformations (from consumer expendables to new household needs, better education and healthcare, increased leisure and sports) create more and more technical markets.

Woes and wonders

In Professor Betz's last two chapters, he views the grief of "Strategic Dishonor" or failed strategies and companies. His Perils-of Pauline example is that of the American firm

Sunbeam, creator of varied household products. Incoherent corporate order, too unorthodox a leadership at middle management and executive levels and overly organized structure may spell doom for an otherwise future-oriented strategy for market saturation. While successful organization need not be top-down, pyramidal or near military in its line of management, purpose and discipline need to be observed. Executive discretion yes, executive greed no; otherwise financial loss, bankruptcy or other court action may lie ahead.

The final chapter on strategic planning and its implementation includes the study of a South Korean iron and steel works, Posco. In the 1960s, this was a new venture fort in the emerging republic, long deprived of modern industrial capacity by Japan. The Posco story is one of the outstanding successes through a detailed strategy, recounted by Park Wom Koo and Betz before the Pacific International Conference on the

management of Engineering and Technology in 2002.

This book's subtitle, *A Complete Guide*, does not quite fit. Author Betz has done a thorough analysis of functional, private enterprises engaged in the conception, design, manufacture and commercialization of many great artifacts. Readers from governance, the management of teaching institutions, foundations, health-delivery systems, aid and relief agencies and the wide world of NGOs will want to glean this text for tips and hints for better management of their own productivity and reactions to social and economic change. This is the concealed strength of a volume dedicated essentially to the world of commerce and progress. The book is worth its price.

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Jacques Richardson is Partner at Decision and Communication, Authon la Plaine, France. Our reviewer has been a contributor to this journal since its inception.