

Reinventing Project Management: The Diamond Approach to Successful Growth and Innovation; *Aaron J. Shenhar and Dov Dvir, Harvard Business School Press, Boston, MA; 2007; 274 pp., \$35.00.*

Reinventing Project Management is important to R&D/technology managers but not because it actually reinvents project management. In fact, it really doesn't even really address how to manage projects. What the book does is absolutely critical: it connects the linear world of project management with the tumultuous world of strategy.

Aaron Shenhar is professor of management at Stevens Institute of Technology, New Jersey, and Dov Dvir is head of the management department at Israel's Ben Gurion University School of Management. The key question they address is: "what do organizations need to consider before they launch a new project, and how they should address the project in retrospect." The book does not reinvent the techniques for keeping a project on time or on budget; the authors assume the readers already do these. Their contribution lies in providing a tool that crosses the boundary from strategic managers to project managers.

A problem many companies have with project management is that project success is defined too narrowly. For example, if a project is on time and on budget it is considered a success. Shenhar and Dvir point out that project criteria should include the strategic aims of the company. The difficulty often comes when strategic aims do not get translated into project selection and management.

The author's tool, The NTCP Model, identifies four dimensions that tie strategic and project managers together in a discussion that helps them address what needs to be considered before a project is launched. This helps ensure correct resources are assigned to the project as well as a shared

understanding of the expected results and why the project is important.

Again, this book does not address how to manage projects; more importantly for *RTM* readers, it closes an open managerial gap between strategic planning and project management. A more appropriate title of the book might have been, "Managing Project Management."

After explaining the shortcomings of project management and why companies need a more complete model in chapters 1 and 2, chapter 3 introduces The NTCP Model or "Diamond Approach." The model identifies levels of Novelty, Technology, Complexity, and Pace (NTCP) along four orthogonal dimensions with a common origin. A standard Cartesian plane places Novelty on the positive X axis point, Technology on the positive Y axis point, Complexity on the negative X axis point and finally, Pace on the negative Y axis point. These four points define the diamond.

The second part of the book, chapters 4 through 7, describes each of the four dimensions or points of the diamond. The important issue is for strategic and project managers to see the project in the same light and truly come to a meeting of the minds about how to manage the project from a strategic as well as program level.

Chapter 4 describes three levels of Novelty: derivative, platform and breakthrough. Derivative projects are extensions and improvements of existing projects. Platforms are defined as new generations of existing product lines, such as trying to figure out what is the next product line after the Razor phones. Breakthroughs are new-to-the-world products the

customers have not seen and in which the company may not have expertise.

Chapter 5 describes four levels of technology uncertainty: low-tech, medium-tech, high-tech, and super-high-tech. Low-tech projects rely on existing, well-established technologies and well-known methods. It seems that according to this definition semiconductor production is low-tech. Medium-tech projects use existing technologies but also incorporate new technology or features. High-tech projects utilize technologies that are new to the company but available at the start of the project. Super-high-tech projects require technologies that are not available at the start of the project; new technologies must be developed within the project to be successful.

Chapter 6 describes three levels of project complexity: assembly, system and array. Assembly projects require bringing existing elements together for a new product. System projects involve bringing together a complex system of interactive elements and subsystems. Array projects involve multiple systems that must function together.

Chapter 7 describes four levels of pace or how fast a project must be completed: regular, fast/competitive, time-critical, blitz. Regular projects are not time-critical. Fast projects must be done quicker to take advantage of a market or strategic opportunity or threat. Time-critical projects must be done by a specific date in order to meet a window of opportunity. Blitz projects must be done to solve a crisis in the organization.

These dimensions and levels are what the authors argue must be considered before a project is launched. By understanding these dimensions or diamond pattern, the strategic and project managers can plan for and share common expectations of performance and impact. This allows strategic managers to assign the appropriate resources to the project managers to accomplish what the strategic managers expect. Linking strategic and project management with a concrete tool is a powerful and helpful concept.

The NTCP model is particularly helpful for senior technology managers who interface with strategic managers. It

allows the technology manager to engage strategic managers in a discussion about resources and expectations. It forces managers to consider each project as a unique activity. This allows true differences in projects of different priorities and allows much better measurement of performance against project-specific performance expectations.

Each chapter is full of examples that do a good job of explaining and demonstrating the point. In fact, sometimes there are too many examples and the thread of the content is interrupted with such interesting examples.

The third part of the book, chapters 8 through 11, will be the most important to experienced technology managers. Shenhar and Dvir draw on their considerable experience to describe how to use the model in real-life situations for the most impact. They describe how to move beyond time, budget and performance and explain how to make projects not just meet operational objectives but be successful in the market place. They demonstrate how to use the Diamond model to achieve the long-term business goals of the firm. It is also clear that using the model over time will help form strategic thought.

The book concludes with how to reinvent project management in your organization. The authors reiterate the valid point that project management must include more than time, budget and performance, that it must include how to manage project management. The authors make scant reference to implementing policies, integration with portfolio management, training managers, creating career paths and a learning environment. Notwithstanding the authors impressive experience, this chapter is short on how to actually make this work and seems to ignore the existing structure and political milieu in which the Diamond must operate.

Reinventing Project Management is a must read for senior project managers that want a productive interface with strategic managers. It is also critical for midlevel project managers who want to increase the relevancy and impact of their projects. It is for all managers that want to manage the project management function to achieve performance beyond

the traditional objectives of time, budget and performance.

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The Fast Path to Corporate Growth: Leveraging Knowledge and Technologies To New Market Applications;
Marc H. Meyer;
Oxford University Press, 2007;
303 pp., \$30.00.

This book explains the discipline required for developing innovative products and creating new businesses. Marc Meyer, who is the Matthews Distinguished University Professor at Northeastern University, uses several company examples and product categories to bring each of the chapter's contents to a greater level of understanding. Exercises at the end of each chapter allow the reader to attempt an application of the chapter's content to their business and/or product idea.

Consumer/customer segmentation is explored early in the book, as it is foundational role during the implementation of new technologies. Product developers should seek to understand the different segments as they explore new and current users and uses for technologies.

Meyer describes four key elements of user-centered design that these developers should consider. These elements include: understanding the user's points of pain and pleasure, concept creation, prototype development, and validating the prototypes against a broader audience of target users. He then dives into each of these elements, providing ways to improve and methods to practice. He reviews many different methods to approach design concepts for testing across several product types, including pet food, insurance, automobiles, and software.

Many of us working in R&D know the significance of learning from failures. Meyer reviews the learning of several companies achieved via the design concept and prototyping phase.

As companies create new products and businesses, they should attempt to utilize a more modular approach. Meyer states that the best way to leverage technologies for new market applications begins with the development of a robust, modular architecture composed of subsystems, each of which has a specific purpose. He then reviews how this works for products, software systems and services. Examples range from the design and use of automobile engines by Honda to the technical platforms utilized in the flexible manufacturing of My M&M's from Mars.

Meyer then shifts from product development to a review of business model innovation, taking a look at how companies makes money at what they do and then how companies take new approaches to enhance their business. As an example, he reviews Apple's iPod/iTunes business model and shows where Apple not only makes money on the one-time sale of the iPod, but also on each of the iTunes downloads. He cites several other examples throughout this section of the book that demonstrate the power of innovating the business model. Along with this review, he provides thought-provoking questions that could alter the future of some R&D efforts and create new horizons.

In closing, Meyer encourages companies to review the governance and leadership of major new efforts within the organization. He suggests the creation of a New Market Applications Board composed of a few select executives who take personal responsibility and are committed to growth. New applications of technologies and new business approaches tend to be beaten down by the traditional organization structures and the approval processes. The proposed Board is given the role of sponsoring these projects. Examples of Board responsibilities are provided, along with applications learned from some of those companies referenced throughout the book. Meyer concludes

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