



Making Technology Investments Profitable

ROI Road Map
from Business Case to
Value Realization

**SECOND
EDITION**

Jack M. Keen

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WILEY

John Wiley & Sons, Inc.

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

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Library of Congress Cataloging-in-Publication Data:

Keen, Jack M.

Making technology investments profitable : ROI road map from business case to value realization / Jack M. Keen. — 2nd ed.

p. cm.

Includes index.

ISBN 978-0-470-19400-3 (hardback); ISBN 978-1-118-02858-2 (ebk);

ISBN 978-1-118-02859-9 (ebk); ISBN 978-1-118-02860-5 (ebk)

1. Information technology—Management. 2. Information technology—Economic aspects. I. Title.

HD30.2.K427 2011

004.068—dc22

2010047241

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

*To my family: Bonnie, Bryce, Mark, and
Shanti, and to their families—for helping
make this book possible in a hundred
different ways.*

Preface to the Second Edition

Why a Second Edition?

Since publication of the first edition of this book eight years ago, the world, and management's response to it, has vastly changed. While the need to create trustworthy business cases, as emphasized in the first edition, remains as important as ever, executives are now also increasingly concerned about what do to *after* the business case gets the funding. How, they ask, can we be assured that the value promised in the business case actually gets realized? These leaders have learned the hard way that this task is tricky. They see firsthand how value leakage that begins as drips can quickly grow into torrents, leaving ROI-devastated solutions in their wake. Such disappointments disillusion stakeholders and discourage solution delivery people.

What management often doesn't see—and what this second edition explains—is that more often than not, the root cause of value shortfalls is management's inattention to value realization best practices. A modicum of management focus on value achievement discipline can help maximize ROI results.

Nature of the Advice

For the past decade, the author and his consulting colleagues have helped business transformation programs maximize ROI across four continents. In the process, many “value success” do's and don'ts have been identified, synthesized, and categorized. Some are obvious. Some are subtle. All are pragmatic. This second edition recaps these lessons, with an emphasis on how to quickly put them into action.

What's New in This Edition?

The guidance in this new edition takes into account several new realities related to IT-enabled investments: They are more important to enterprise success than ever before; they are more complex and costlier to implement; and they carry a high risk of failure, especially in terms of lost opportunity and time.

The first edition focused primarily on getting the business case right—the essential yet often misunderstood foundation for value achievement. This second edition extends that foundation to elaborate on what management can do to maximize ROI by detecting and eliminating large value leaks occurring throughout the design, development, launch, and operation of the proposed solution.

Seven new chapters are included in this new edition, dealing with:

- How to uncover ROI-draining value leaks that no one has noticed
- Steps for plugging those leaks and preventing similar ones from occurring in the future
- Management practices to put into place related to:
 - Business case creation and maintenance
 - Value measurements
 - Stakeholder accountability for value forecasts
 - Decision making to prioritize solution capabilities, requirements, and rollout sequencing
 - Benefits tracking
- Use of a new Value Practices Audit to make value leak detection and correction faster and easier.
- “Quick wins” to demonstrate the urgency and value of a more disciplined approach to value management

What has not changed from the first edition is a focus on simplicity and practicality. Getting value right is not a complex theory. It's a series of small but vital management-led steps for motivating everyone to be value thinkers, and value doers, 24/7.

Acknowledgments

Creating the second edition of this book, I benefited enormously from the guidance, expertise, and commitment of many Infosys colleagues, clients, friends, and associates.

Major thanks are due to Raj Joshi, cofounder and managing director of Infosys Consulting (IC), and to Sharad Elhence, Infosys's partner in IC's Core Process Excellence practice. Raj is widely recognized as the originator of many innovative value realization approaches that have been enthusiastically embraced by clients worldwide. Sharad is a master at thinking deeply about value realization, and driving the creation of new solutions that address a wide diversity of client needs. Both Raj and Sharad have been uncommonly generous in exchanging ideas with me about how to help clients "get value right."

Culture is crucial when it comes to creating value thinking (and "value doing") within a large organization. Special recognition is given here to key Infosys leaders who have been profoundly committed to creating an Infosys-wide culture where "client value success" is a deeply engrained commitment. Several Infosys leaders have been especially instrumental in making this happen. In addition to Raj and Sharad mentioned above, a great debt of thanks goes to value culture creators Steve Pratt, CEO of Infosys Consulting; Ming Tsai, IC managing director; N. R. Narayana Murthy, Infosys's cofounder, chairman of the board, and chief mentor; Nandan Nilekani, cofounder and former CEO of Infosys Technologies, Ltd.; Kris Gopalakrishnan, Infosys's CEO and MD; and K. Dinesh, Infosys's director and head of quality.

Additional thanks are also due to other Infosys colleagues who have contributed, over many years, a constant stream of ideas and sustained passion to help create and implement innovative value realization solutions. These Infosys people include: Saurabh Agrawal, Joe Attia, Arindom Basu, Brandon Bichler, Joshua Biggins, Amar Chhatwal, Andre DuPlessis, Raul Fabre, Shweta Gupta, Cesar Jelvez, Ash Joshi, Sandeep Kumar, Steven Lambert, Heidi Lamberts, Eric Librea, Peter Maloof, Jeremy

Milward, Nitin Pradhan, Mahesh Raghavan, Surabhi Sah, Bibhash Shah, Lars Skari, Chris Spangler, Manu Tyagi, Vivek, and many others too numerous to mention here.

This second edition, like the first edition, would never have happened with the sustained enthusiasm and dogged determination of my editor, Tim Burgard, at John Wiley & Sons. He somehow manages to uniquely combine extreme patience (while I searched for scarce writing time) with a firmness about deadlines and a flexibility to account for unexpected twists and turns. Tim's team, especially Laura Cherkas and Helen Cho, were likewise exceedingly helpful while still reminding me when completion dates were looming.

Intellectually, Dr. Robert Benson, adjunct professor at Washington University in St. Louis, Missouri, greatly influenced my thinking with his pioneering information economics research in the late 1980s. His writings (see the Bibliography) were seminal in turning my career, from the early 1990s onward, to "all ROI, all the time."

An important debt is owed to Professor Warren McFarlan of Harvard Business School. His unique insights through the decades have helped all of us make sense of the always-expanding yet easily fumbled role of technology in business success. Warren's classes, publications, presentations, and conversations have unerringly pointed the way to astute business management of technology, thus helping managers of all types and sizes to "get it." A McFarlan exposition of any kind is an important intellectual (as well as entertaining) opportunity not to be missed.

Several colleagues of mine outside of Infosys have also been very helpful in enabling me to solidify ideas related to maximizing ROI. Thanks especially to Ron Barbaree. Heartfelt thanks also to the brothers Sherman (Craig and Randy), as well as to Christine Comaford, Peter Cunningham, Karl Drexhage, Janine Haines, Beth Holtz, the late Jackie Kessel, Jan McDaniel, Teresa Pahl, Rich Peterson, Jewel Savadelis, and Bob Vizza.

Lastly, I'd like to thank the hundreds of savvy business and IT leaders who have been my clients for value realization-focused engagements. Because these global leaders believed in a vision of better value results, they invited my colleagues and me in the door to team with them to launch value realization best practices that truly made a difference. Not only their ideas, but also their pragmatism as well as the diversity of their industries, sizes, and locations around the world helped me distill universal truths and best practices that have become the core of this book.

Thanks to everyone for contributing to the understanding that while being "on-time" and "on-budget" is a good thing, being "on-value" is the ultimate measure of our success.

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Introduction

Price is what you pay. Value is what you get.

—Warren Buffett, 1930–, American investment entrepreneur

What This Book Is About

Ultimately management exists to maximize value. All else is a means to that end. Thus, it's surprising that three-quarters¹ of IT-enabled investments still do not deliver their expected value. Why is management allowing this to happen? Based on extensive field experience over the past decade, this book explains why value leaks still persist in gusher-size proportions, and what management can do to stop them.

This book's central thesis is that while dangerous value leaks are prevalent, they are quite preventable. The key is for senior and operational management to discard their ad hoc approach to value assurance and replace it with pragmatic, disciplined practices that create a value-focused culture that is both broad and deep.

The widespread lack of management attention to value-enhancing practices usually exists because decision makers:

- Underestimate the huge value penalty of current management practices, and/or
- Are unsure about the most effective ways to get value back on track, and/or
- Misjudge the centrality of their role in value success.

1. Standish Group Survey, "The Chaos Report" (2009).

The chapters that follow discuss ways to locate and then fix existing leaks, as well as identify management practices to prevent future ones. Included are explanations of how to spot warning signs of value trouble, such as:

- *Missing or flawed business cases.*² Experience indicates that over 50 percent of funded IT projects still use no formal ROI guidance. Over 80 percent of the business cases the author has seen are flawed in overt or subtle ways. Shiny shoes, a tap dance, and a few discreet, offline conversations continue to grease the skids for approvals of favored projects. Political influence lurks at every turn to trump objectivity.
- *Shallow and/or ambiguous accountability.* “One hundred percent of our executives have bought into the program’s benefit goals” is not a statement of assurance. The key question is: Will they and their key subordinates be accountable for benefits realization at bonus time? If all managers and staff who can directly influence value realization do not truly believe in and are not formally accountable for their share of an investment’s value success, the program is flying on a wing and a prayer.
- *Value-blind design decisions.* A solution’s design is the result of hundreds, if not thousands, of design decisions related to capabilities, requirements, and functionality. If these design choices are not primarily selected based on “contribution to value,” then the solution itself cannot hope to be an ROI triumph.
- *Value-flawed prioritization decisions.* Decisions related to prioritization choices, such as when to customize packages, how to sequence rollouts, and resolution of scope control issues, can easily subvert ROI if they are not value guided.
- *Loosely disciplined benefits tracking.* Benefits tracking that is ad hoc or has little management discipline for continuous review and resolution will leave stakeholders wondering, “Was the investment really worth it?” Solutions with ambiguous benefits leave stakeholders questioning the credibility of everyone associated with their design and implementation.

From these insights comes the conclusion that the single most important ingredient for value success is senior management’s willingness to champion a better value management process—clearly, loudly, and often.

2. For the purposes of this book, a *business case* is defined as an analysis describing the business reasons why a specific investment option should or should not be selected.

For these reasons, this book's mantra is that value is maximized only when programs are completed not only "on-time" and "on-budget," but most importantly, "on-value."

When such management commitment to and discipline for being on-value is in place, many advantages accrue, including:

- A higher likelihood that forecasted investment returns will be realized, making all stakeholders more satisfied in the present and more supportive of other investments in the future
- Greater assurance that program costs won't go out of control due to lack of consensus on where the value lies and what is driving it
- Increased buy-in to management's investment decisions, due to a more open, objective, and value-focused process of selection, design, and implementation
- Reduced political friction due to a stronger, shared sense that chosen investments are appropriate, objective, and fair
- Decreased time and effort in evaluating and prioritizing projects for funding
- A higher likelihood that the funded project will be completed on-time and on-budget, due to more streamlined, value-based design and implementation decisions
- More confident and inspired program sponsors, developers, implementers, and solution users

What Makes This Book Unique

Distinctive characteristics of this book include:

- *New wisdom on how to shape compelling business cases.* Good ROI is more about conversations than calculations. More about psychology and politics than percentages. More about logic and wisdom than tons of numbers. More about the visibility of intangible (nonmonetary) benefits than obsessive focus on "hard" money payoffs. More about a life-cycle-enduring spotlight on managing value than a "get the funding and run" mind-set.
- *How to begin, not end, value achievement with a strong business case.* Turning value forecasts into value attainment demands that a reliable and continuously updated business case serve as the foundation for value management decisions and monitoring during every step of the project's lifetime.
- *Field experience holds center stage.* Every observation and recommendation in this book reflects the experiences of thousands of IT-enabled programs from dozens of industries worldwide.

- *Real-life cases and stories are plentiful.* Vignettes, both short and long, help readers quickly “get it” by showing how key concepts and principles relate to the real world.
- *Inclusion of a self-guided Value Practices Audit (VPA) with step-by-step procedures.* This easily applied assessment tool shows readers how to quickly determine the existence of value leaks and their likely causes.
- *Focus on immediately useful tools, techniques and tips.* “Usable tomorrow morning” is the theme song for the abundance of methods explained in this book.
- *Emphasis on “quick wins.”* Over 30 “see results fast” approaches are presented.
- *A complete best-practice ROI business case example.* The Appendix contains a full-featured sample ROI business case that incorporates the reliable methods and principles advocated in this book.
- *Balanced discussion concerning “What,” “Why,” and “How.”* It takes all three to get it right.
- *A concise, “nugget”-oriented writing style.* Points are succinct. Paragraphs are intentionally short. Visuals are abundant. Helps drive quick comprehension and ease of reference.

Audience

This book is primarily for managers and staff, from boards and CxOs down to first-level supervisors, who have the interest and power to improve management practices to increase technology investment payoffs.

Other readers, such as advisors, trainers, industry analysts, academics, and students, will benefit from this succinct overview of technology value creation methods and “how-to” approaches.

Origins of the Author’s Views and Methods

The contents of this book are the results of the author’s and his colleagues’ combined experience of hundreds of years in the information technology industry. Specific to the topics within this book, a major information source has been the knowledge gleaned during the past 20 years from the author’s completion of over 200 value realization-oriented consulting assignments in more than 15 countries worldwide. These engagements include global business transformation programs, often representing the biggest IT investment bets a firm has ever made. Also influencing this book’s content are experiences with smaller projects, measured in person-months of effort,

but nevertheless important to the enterprise's business success. Over 10,000 people on the world's major continents have been trained on various combinations of the methods outlined in the chapters that follow.

From this rich base of "the school of hard knocks" content, the author uncovers root causes of technology payoff challenges and then establishes practices and methods to avoid or mitigate such problems. From those experiences the author has distilled for this book a variety of pragmatic, commonsense audits, guides, procedures, and tools.

Scope and Content Focus

This book focuses on how to prevent, detect, and stop value leaks in order to maximize value realization from information technology investments of all types. Examples include:

- **Global business transformation programs**, such as those involving enterprise resource planning (order to cash, finance, human resources, legal, IT, etc.), plus customer relationship management and more
- **Applications and infrastructure software**, such as customer-facing, back office, data warehousing, and middleware solutions, as well as technology research and development programs
- **Internet and digital media**, including eCommerce, social networking, and self-service programs
- **Systems investments**, such as hardware, software, and services
- **Platforms** involving Internet, Intranet, mainframe, client-server, PC, terminal, and mobile components
- **Process improvement projects**, such as business process reengineering, as well as methods, standards, and policies adoption
- **Business process outsourcing, applications maintenance, and testing**
- **Operations options** such as outsourcing, IT group centralization or decentralization, and training

Whether you are seeking entirely new initiatives, prototype development, or maintenance and upgrades for existing investments, if the funding is significant and value success requires the buy-in and focused support of a variety of important stakeholders, then the methods in this book are needed to help maximize value realization.

Although this book focuses on IT-enabled programs, most of the principles and methods discussed can also be applied to many other non-IT related investment decisions, such as business strategy choices (e.g., whether to enter a new market), capital equipment options (e.g., whether to boost truck fleet capacity by 50 percent), or departmental budgeting options (e.g., whether to invest more in advertising, or elsewhere).

The principles, concepts, and examples discussed are applicable across all industry and economic sectors, including both for-profit businesses and nonprofit entities, such as education and government.

Better ROI-enhancing methods explained here complement and reinforce several powerful business practices, such as:

- **Balanced Scorecards:** Kaplan and Norton's globally popular strategic analysis and performance measurement methodology.³ Business cases can gain clarity via usage of Balanced Scorecard value categories. Balanced Scorecard users can benefit from a more reliable business case process for identifying the true business value of strategies the Scorecard is helping to support.
- **IT portfolio management:** a methodology for optimizing IT investment value by selecting and managing multiple IT projects for the greater good of the entire enterprise. Business cases are more effective when they incorporate portfolio management concepts. IT portfolio management proponents will find that stronger management focus on value-based decision making for implementation life cycle options and follow-up benefits tracking will help ensure that expected value becomes actual value.
- **Performance management:** the typical HR-driven management practice of measuring and rewarding managers and staff, based on contributions to business success. The value realization approaches in this book strongly emphasize stakeholder accountability—a focus that directly intersects with performance management practices.
- **Lean Six Sigma and Six Sigma:** methods for finding and eliminating errors in processes and operations, using analytical assessments and quantified targets. Many value improvement practices discussed in this book reinforce as well as augment Six Sigma principles. For example, a business case can embody those Six Sigma targets relevant to a given solution being justified. Stakeholder accountability, value-based design, and benefits tracking can use the areas and targets identified by Six Sigma. Similarly, Six Sigma efforts can gain from leveraging many of the value practices discussed in the chapters which follow.

Fortunately, the road to achieving more payoffs from technology-driven investments is more about learning and discipline than about big chunks of decision process reengineering. A simple belief in the power of

3. Examples of business cases employing Balanced Scorecard principles are found in Chapter 10 and the Appendix.

a few key principles and an unswerving commitment to apply them can bring big results faster than expected.

I'm looking forward to hearing of your experiences with the approaches outlined here. Drop me an e-mail with your questions, comments, successes, suggestions and/or challenges. Maximizing value is a continuous learning affair for all of us.

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