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Competing by Design

The Power of Organizational Architecture

DAVID A. NADLER AND MICHAEL L. TUSHMAN

WITH MARK B. NADLER



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Competing by Design

**BOOKS BY DAVID A. NADLER
AND BOOKS BY MICHAEL L. TUSHMAN**

*Discontinuous Change:
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*Winning Through Innovation: A Practical Guide to
Leading Organizational Change and Renewal*

*This book is dedicated to our children—
Amy, Cara, Katharine, Jonathan, and Rachel—
sources of great joy to us over the years.*

Preface

Let's do a few quick mental calculations.

See if you can come up with a rough estimate of how much time you've spent in the past year thinking and talking about competitive advantage. Remember to include time spent in attending meetings and seminars, reading and writing memos, digesting reports, and articles—and maybe even scanning a few books.

Now try to remember how much time you've spent working on reorganizations, restructurings, and redesigns—those dictated from above as well as those you've initiated yourself.

Finally, put the two together and try to come up with a report card. Grade yourself on (1) how much of the organizational redesign was directly related to your search for competitive advantage; (2) how many restructurings were implemented with an eye towards others that would likely follow; (3) how many restructurings you had to abandon, fix or replace within twelve months; and (4) how many actually achieved the competitive goals you originally had in mind.

Unless you're incredibly lucky or superbly skilled, your honest self-appraisal will be less than dazzling. You're not unusual. After more than forty years of combined experience with more than fifty organizations of all kinds throughout the world, we've come to realize that organizational design is at once one of the most common—and one of the most commonly mishandled—of all business activities.

We believe this book can help—whether you’re a CEO or a department head, whether you’re looking for ways to redesign a corporation or restructure a factory. It is based on our notion of “organizational architecture,” which simply boils down to this: The traditional search for competitive advantage in terms of specific products, technology, markets, or production processes is obsolete. You won’t find it there any more. The only real, sustainable source of competitive advantage lies, instead, in an organization’s “architecture”—the way in which it structures and coordinates its people and processes in order to maximize its unique capabilities over the long haul, regardless of continuous shifts in the competitive landscape.

Operating with that overall blueprint, we describe in this book the concepts, processes, and practical tools for translating the theory of “architecture” into practical lessons in successful design at every level of the organization. Throughout, we’ve consistently attempted to tightly link a coherent, time-tested theory with concrete examples taken from actual experience.

We first wrote about this approach to design in 1987, when we co-authored *Strategic Organization Design*, a book that enjoyed wide acceptance in academic and educational circles. In the decade since then, we have been using and refining these concepts in a wide range of change situations. We have tested our ideas in the marketplace and learned from practical experience. In the decade since our first book was published, we have seen our ideas and lessons put to use in one organization after another. As a result, what began simply as an attempt to update the first book became a much more ambitious endeavor and resulted in a much different book. *Competing by Design* is not only based on more contemporary developments in business and management; it reflects concepts sharpened by years of experience and refinement. As a result, in comparison with our earlier effort, this book is intended for practical use by a much wider audience, including executives and managers at organizations of all kinds.

Acknowledgments

Our thinking on this issue was profoundly shaped by several of our academic mentors—Paul Lawrence and Jay Lorsch at the Harvard Business School and Jay Galbraith, now at the University of Southern California—who influenced, inspired and supported our early efforts. In addition, many of our concepts, particularly those involving participation and the coupling of research with practice, were

shaped by our mentors, colleagues, and dear friends, Ed Lawler and Tom Allen. We will always be in debt to each of them.

Our work on organizational architecture, executive teams, and change builds on that of many others. Charles O'Reilly and Jeffrey Pfeffer, both at Stanford, have been wonderful friends and colleagues over the past twenty years, and their ideas pervade our book. At Columbia, Mike has been nourished by superb students, executive education participants, and faculty colleagues. In particular, Don Hambrick, Joel Brockner, Ruth Wagemen, Eric Abrahamson, Schon Beechler, Jerry Davis, Chris Ahmadjian, Kirby Warren, and Danny Miller have been of particular assistance in helping us connect our ideas to practice. While visiting at INSEAD and MIT, Mike got important feedback from Deborah Ancona, Charlie Galunic, Martin Gargiulo, Rick Rummelt and Henry Mintzberg. Finally, Andy Van de Ven, David Whetten, Lex Donaldson, and George Huber have all pushed us to deepen and extend our work on organization architecture and managing change.

Since its founding more than sixteen years ago, the Delta Consulting Group has been our laboratory for developing design concepts and tools. Over the years, many of our Delta colleagues have helped to shape and refine this approach to design through their work with clients. It would take more space than we have here to mention them all. But several colleagues—both past and present—merit special thanks for their role in developing these concepts and tools. These include David Bliss, Marc Gerstein, Rick Hardin, Michael Kitson, Terry Limpert, Kathy Morris, Chuck Raben, Robert Shaw, Marilyn Showers, Janet Spencer, Roselinde Torres, and Elise Walton.

In particular, Marilyn Showers, Michael Kitson, Rick Hardin, and Chuck Raben were of great assistance in helping to develop case material and concepts that appear for the first time in this book.

Finally, and perhaps most importantly, we want to acknowledge our clients, who have truly been our partners in learning over the years. Again, it would be impossible to mention all of them here. But we do want to note several individuals and companies whose active collaboration has been of particular value over the years.

Paul Allaire and Bill Buehler at Xerox have been partners in some of our most ambitious design work, and have urged us on to continue learning new concepts. Paul has often described Xerox as a laboratory for Delta—and it has been.

From the beginning, AT&T has been involved in our work. Many AT&T managers and executives, both past and present—and especially Bob Allen—have supported our efforts. Similarly, our

clients at AT&T who joined its spin-off, Lucent Technologies—including Bill Marx, Rich McGinn, and Carly Fiorina—have continued to support our efforts since the break-up.

For more than a decade, Corning has been an active partner in our learning. In particular, Jamie Houghton, Roger Ackerman, and the late Jim Riesbeck were all of tremendous help over the years.

We also offer our special thanks to all those at GTE, Kaiser Permanente, and Citibank who also made special contributions.

C.K. Chow and his colleagues in the Industrial Gases Division at BOC helped us extend our work on the challenges of developing and implementing global matrix organizations. For ten years, Guido Spichty has helped us test and refine our ideas on organization architectures throughout Ciba Geigy (now Novartis). We have learned much from Alex Krauer, Glenn Bradley, Kurt Huber, Uwe Eisenlohr, Pierre Urech, Michael Jacoby, and Rolf Meyer. We thank them and many others throughout Ciba for helping us mesh the concepts of organization design with the realities of shaping executive teams and managing change.

To all of the clients with whom we've worked, and especially to those named above, we express our gratitude for your faith in us and for enabling us to learn together.

Finally, we owe a very special debt to our collaborator, Mark Nadler. When Mark first joined this effort, we were planning on a simple rewrite of our 1987 book. His vision of a new, broader, and much more accessible book inspired us to take on a more ambitious goal. Time and again, we were amazed by his ability to take our concepts and experiences and make them come alive on the page. His years in both the local and business press and his management experience in the newspaper industry all combined to make him a very special and valued partner in this project. Thanks, Mark.

New York, N.Y.
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October 1996

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Competing by Design

1

A Blueprint for Change

BOC Industrial Gases: Awakening a Competitive Giant

For more than a century, the Industrial Gases Division of BOC, a huge British conglomerate, had joined the march of industrial progress across the British Empire. Its 35,000 people worked in fifteen countries around the globe to produce and deliver oxygen, nitrogen, helium, and a wide variety of industrial gases to manufacturers of products ranging from steel and food to microchips.

Industrial Gases maintained a steady, if unremarkable, course until 1993. Then, in a sharp break with its staid British traditions, the company elevated C. K. Chow to its top post. Chow, head of Industrial Gases' Hong Kong subsidiary, was an aggressive entrepreneur with a strong belief that the sluggish giant had lost touch with the competitive realities of the late twentieth century.

As he settled into the corporate headquarters outside London and surveyed the worldwide operation, Chow's concern only grew deeper. He saw an organization resistant to new ideas, focused on internal concerns rather than on customer needs, and fixated on geographic boundaries that discouraged collaboration (see Figure 1-1). While the operation faced no imminent crisis, it was clearly an underperformer, seemingly content to pursue business as usual in a world where markets and technology were constantly changing. He came to believe that two particular problems, if left unresolved, might soon become critical.

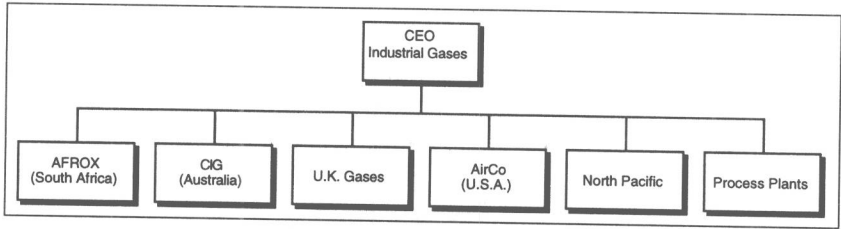


Figure 1-1 BOC (Pre-Restructuring)

First, Industrial Gases was slow to develop new technology and slow to diffuse it throughout the company. A new manufacturing or delivery process developed by the company's Australian subsidiary might take years to show up at the other Industrial Gases operations. In the meantime, competitors were copying the Australian breakthroughs and using them to gain advantage over Industrial Gases subsidiaries in other countries.

Second, from a historical standpoint, the industrial gases business had been intensely local; plants were located right next to steel mills, for instance, and few customers had global operations. By the early 1990s, that was changing. Major microchip producers, such as Intel and IBM, had little patience for dealing separately with BOC in a dozen different countries; they wanted to streamline their relationships and have just one BOC contact—and if they couldn't, they were more than willing to take their business elsewhere.

Convinced that the company's plodding performance was rooted in fundamental organizational problems, Chow secluded himself with the dozen members of his senior team near the ancient village of Runnymede. There, they spent days thrashing out the company's problems and hammering out a new vision for the future. They resolved that in order to be truly competitive in a full range of local and worldwide markets, they would have to become "the most customer-focused" company in the industrial gases business "through innovation and service created by working together around the globe."

At first, the senior team was excited. Then came a painful let-down, as they realistically set their grand vision alongside the jolting reality of the self-satisfied relic Industrial Gases had become. The truth was that the company was neither technologically innovative nor customer focused; it didn't think or act globally.

Their challenge was clear: In order to fulfill their strategic vision, they would have to dramatically redesign virtually every aspect of the company.

Introduction

The story of C. K. Chow's campaign to reshape BOC's Industrial Gases Division illustrates the defining goal of modern-day business—the search for competitive advantage. As everyone in business knows, it's a lot harder than it used to be—and getting tougher all the time.

On one hand, in practically every industry and business sector, competition is more intense than ever. The quickening pace of technological innovation, rising consumer expectations, government deregulation, global markets—all those factors and more create opportunities for new competitors who suddenly change the basic rules of the game with new products, production processes, distribution patterns, and marketing strategies.

At the same time, most of the old, reliable sources of competitive advantage are drying up. No longer can companies located in a handful of money centers rely on exclusive access to capital; no longer can the Xeroxes and Polaroids of the world rely on the exclusive, proprietary technology that once assured them of a virtual monopoly. Markets that were once the exclusive domain of local producers are now fair game for competitors headquartered halfway around the globe. And highly skilled employees, their loyalty shaken by years of corporate cutbacks and downsizing, feel free to offer their services to the highest bidder.

In the war for competitive advantage, the rules of engagement have been thoroughly transformed. The strategies employed by General Motors, IBM, and AT&T to maintain their seemingly unassailable positions of dominance in the 1960s and 1970s are as obsolete today as the full-dress cavalry charge.

In this volatile environment where instability is the norm, we're convinced that the last remaining source of truly sustainable competitive advantage lies in what we've come to describe as "organizational capabilities"—the unique ways in which each organization structures its work and motivates its people to achieve clearly articulated strategic objectives. These capabilities combine an organization's core competencies—technological innovation, customer focus, low-cost manufacturing of high-quality products, or whatever they might be—with the ability to sustain and adapt those competencies in the fulfillment of long-term objectives despite changing competition, altered strategies, and the loss of key employees.

What does that mean for managers? Two things. First, it means they have to understand the concepts and learn the skills involved in designing their organizations in ways that unleash and exploit