SURVIVAL
of the
SMARTEST
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MANAGING INFORMATION FOR RAPID ACTION AND WORLD-CLASS PERFORMANCE

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To Dana and Swenja
To make this book possible, we have combined a decade of our own research and consulting practice with countless years of hands-on experience of many practicing managers.

Our deepest gratitude goes to a remarkable set of high-level executives who spent numerous hours with us discussing and refining our concepts. These include, to name but a few, Stan Shih, Ronald Chwang, and Mike Culver at Acer; John Cross at British Petroleum; John Morgridge and Pete Slovick at Cisco; Ken Coleman and Tom Davis at Silicon Graphics; and Mel Friedman and George Paolini at Sun Microsystems.

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In the course of our consulting work, we were impressed by many outstanding managers who implemented leading-edge business practices in some of the world’s fastest moving and most competitive business environments. We also learned from some who were not as successful. While they must go unnamed, they certainly were instrumental in helping us understand why only the smartest companies will survive the challenges of the twenty-first century.

For the research that forms the foundation of this book, our gratitude goes to the Stanford Computer Industry Project (SCIP), a multimillion-dollar Stanford University project. We are indebted to the Sloan Foundation and to SCIP’s member companies for funding the project and for sharing their experiences with us. At SCIP, special thanks goes to Ravi Pillai, who, as a full member of our research
team, participated in shaping the Organizational IQ concept, testing it empirically, and studying its implications.

We greatly benefited from our collaboration with McKinsey & Company that helped us to put together a unique quantitative database that included firms’ Organizational IQ measures, management practices, and financial performance. This database was used as the basis for detailed empirical studies that validated our concepts and confirmed the relationship between Organizational IQ and financial success. The database was based on a detailed questionnaire administered to 164 business units in Europe, the United States, and Asia. The questionnaire was augmented by detailed on-site interviews and wide-ranging discussions with managers.

Gathering data at this level of detail on a global scale would have been impossible without the experience, participation, and active support of numerous people at McKinsey & Company. Mike Nevens and Art Cimoto at McKinsey’s San Francisco office, Jürgen Kluge and Ingo Beyer von Morgenstern at McKinsey’s Germany office put this project high on the agenda of McKinsey’s worldwide electronics practice and shared both knowledge and resources that helped bring the project to successful completion.

Our book would never have reached its current form without the help of three individuals: Our editor at Wiley, Henning Gutmann, encouraged, supported, and assisted us through the entire lifecycle of the book. Alex Brubaker, cofounder of Arbor Vita, helped us to hone our concepts and improve our presentation. Gregory Slayton, a veteran of several Internet success stories and cofounder of Synesis Management Consulting, inspired us through his enthusiasm and confident belief that Organizational IQ was a key driver of business success, and encouraged us to focus the book on this core concept.

Finally, our families played a crucial role in making the book happen. Rather than just bearing with us and hoping it would be over soon, our wives, Dana and Swenja, believed in the potential of this book, actively contributing to both content and style. Daphna Mendelson helped edit the book and make for a smooth presentation.

We are truly grateful to you all.

H.M.,
J.Z.
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WHAT THIS BOOK IS ABOUT

As we reach the turn of the millennium, executives around the world are feeling the heat. Unlike the gradual 100-year transition from the Agricultural Age to the Industrial Age, the Information Age has arrived at lightning speed, leading to dramatic changes in the competitive landscape. The stakes are high and change is unstoppable. Yet, to most managers, it is still unclear how business practices should change in response to the new realities. A survey of 350 board-level directors and executives revealed that only 4 percent of senior managers believe they are well-prepared to lead tomorrow’s organizations.1

Consultants and management gurus have jumped on the change bandwagon, creating and selling techniques for leading and implementing organizational transformation. These techniques, however, can be worse than useless if the company does not change in the right direction. Managers are under constant pressure to “do something,” but what that something is often remains unclear or depends on the buzzword of the month. Time and time again, we have observed managers who fail to implement change programs because they don’t have a clear understanding of what their organizations are changing into—or why.

This book provides you with a framework for analyzing how your organization can adapt to the realities of the twenty-first century. The concepts underlying this work reflect insights that were gleaned from our consulting experience, applied research, case studies, numerous interviews with managers of leading companies, and two comprehensive worldwide surveys.

At the heart of the book is our concept of Organizational IQ, a quantifiable measure of how organizations assimilate information and put together their decision and information architectures. Because
the clockspeed of business processes is increasing dramatically and information is prevalent in quantities that were unheard of ten years ago. Organizational IQ has a strong effect on a company’s financial performance and on its chances of survival for the new millennium.

Our research led us to analyze detailed operational and financial data for a total of 164 high-tech business units. Using this data, we calculated each company’s Organizational IQ and classified them into High-IQ and Low-IQ companies.

We found dramatic differences between the financial performance of Low-IQ and High-IQ companies: High-IQ companies grew much faster and were more profitable than their Low-IQ peers. To make sure the results were not driven by business conditions in a given period, we repeated the analysis twice: once based on 1992–1993 survey data and again based on 1994–1995 data. The results from the 1994–1995 survey reconfirmed and amplified our original results: not only were High-IQ companies performing better than their Low-IQ peers, but the gap between the two groups had also increased substantially. The results strongly indicate that Low-IQ companies have a low chance of survival in the twenty-first century. In fact, several of the Low-IQ companies we studied have vanished by the time we put this book together.

Our measures and their impact on financial success were scrutinized in a battery of statistical tests, resulting in a number of research papers in leading academic journals. We elaborate on this aspect of our work in more detail in the Appendix.

Encouraged by the clear-cut results of our research, we also conducted a number of consulting studies in which we helped companies apply our concepts. At these companies, we used a systematic process to increase Organizational IQs— which subsequently improved financial performance. We share one example from our consulting practice in Chapter 10.

Chances are that you realize your organization needs to change to meet the demands of the twenty-first century. You want to determine how your company, division, or group is doing at present, what needs to change and how this can be done. This book is designed to help you accomplish these objectives.

In Part I, Information Age Principles, we explain what factors contribute to a high Organizational IQ and why a high Organizational IQ leads to success in fast-changing environments. Each
chapter is dedicated to one fundamental principle of Information Age management. We present specific results from our surveys that show the differences between High-IQ and Low-IQ companies. And we show how leading companies like Dell, Sun, or Chrysler implement these practices.

In Part II, Company Case Studies: Getting Smarter, we look at three global companies that had to drastically improve their Organizational IQ—and are still working on it. We first study Hewlett-Packard, a recognized Information Age leader. Time and again, HP had to go through a painful process to increase its IQ in the never-ending race of the computer industry. We then track the ongoing roller-coaster ride of Acer, a Taiwanese high-tech company that is still struggling to learn the lessons of the Information Age. Our third case study comes from an industry that is slow-moving by comparison—the oil industry. We tell the story of British Petroleum (BP), a European-based oil company that managed a turnaround from an archetypal Industrial-Age corporation into an agile High-IQ competitor.

In Part III, Your Turn, we discuss the key question “How can I increase my organization’s IQ?” Based on our consulting experience, we present an in-depth case study in which we helped a company increase its Organizational IQ and thereby its operational and financial performance. In this part, we elaborate on our implementation process that we believe will help your organization as well.
Today, there are just two types of companies: the quick and the dead.

Andy Grove, Chairman and former CEO of Intel

In 1992, ten personal computer (PC) manufacturers participated in a global survey that allowed us to assess their Organizational IQ—a measure of their ability to quickly process information and translate it into viable decisions.

By 1998, only five of these companies were still around. Five had either faced bankruptcy or had been acquired by stronger competitors. Some of the five that didn't make it had appeared to be quite successful in 1992. Their profit margins were above industry average and growth rates were positive. Why weren't they able to sustain their position? The answer is twofold:

1. The clockspeed of the industry has increased dramatically from 1992 to 1998. Figure 1.1 shows the decline in product lifecycles for the PC industry.¹

2. Each of the five companies that failed had poor information and decision architectures, indicated by Organizational IQs that were below the industry average. The five surviving companies were “smarter”—scoring above the industry average.

¹
It’s not just the PC industry. Around the world and in all industries, managers are feeling the clock ticking faster and faster. Decisions have to be made quickly. Everything is in flux. There is too much information and no time to absorb it. Everybody’s calendars reflect the frenzy. One meeting follows another, and day-to-day operations are driven by immediate or missed deadlines. Annual plans can become obsolete in weeks, and five-year plans sound surreal.

In this environment, speed of decision making is key. At the same time, the quality of decisions and their implementation cannot be compromised—one wrong move can open the door for competitors and jeopardize the results of lengthy efforts.

The ability to process large amounts of information quickly and effectively has become the crucial competence of companies in the Information Age. This is where our concept of Organizational IQ
comes into play. A company’s Organizational IQ describes how well the organization performs along the following dimensions:

- **External Information Awareness**: Ensuring that each part of the organization captures the external information it needs quickly and accurately. This includes information about customer dynamics, technology opportunities, and competitive actions.
- **Effective Decision Architecture**: Ensuring that decisions are being made at the right level, that is, by the people with the best information and perspective.
- **Internal Knowledge Dissemination**: Ensuring that each part of the organization knows what it needs to know when it needs to know it. Knowledge dissemination within the organization takes place both horizontally and vertically, across geographical boundaries, and over time.
- **Organizational Focus**: Fighting information overload and organizational complexity by limiting the scope of the business and simplifying structures and processes.
- **Information Age Business Network**: Recognizing that one company cannot create value on its own; that it needs to operate as part of a network. In managing partnerships, High-IQ companies apply the four previous principles of High-IQ management to their entire business network.

We chose the IQ-analogy because in many respects the effects of a high organizational IQ are similar to the benefits of a high psychological IQ. In both cases, the IQ describes the capability of either an organization or an individual to quickly process information, come up with effective decisions, and implement them. High-IQ individuals don’t always succeed, but they are more likely to win in situations where complex decisions have to be made quickly.

There is one fundamental difference, however, between our concept of Organizational IQ and its psychological counterpart. There is not much a person can do to increase his or her IQ. But organizations can and do change their IQs. As we have witnessed in many cases, the Organizational IQ can be systematically increased, and performance improves as a result.
What happens if companies do not adapt to the management practices of the Information Age, but instead continue with business as usual? Unless the company operates in a protected environment (and these are endangered species), the answer is simple: Things get worse. In Low-IQ companies, high-level managers make tactical decisions even if they are not the people with the best knowledge of the problem at hand. People communicate with their peers in other functions only through their bosses. Employees engage in unproductive activities because they have been told to do so. Physical and cultural walls separate corporate functions. Access to external information is restricted, too. Talking to customers and suppliers is the task of specialists. Everyone else is shielded from reality. Deadlines are missed, customers get angry, and workloads increase while productivity keeps deteriorating. Soon, the difficulties become apparent at both the top line and the bottom line: growth slows down and profits decline as well.

Managers in Low-IQ companies often react, almost reflexively, by adding a dose of the old medicine: tighter controls and the concentration of power at the top. This, however, starts a vicious cycle: the “medicine” becomes part of the problem and the results get predictably worse.

Often, employees and first-line managers intuitively feel that something is wrong. On the working level, the folly of Low-IQ management manifests itself every single day. Management attempts to downplay the difficulties and suggest the same old solutions which are met with cynicism. No wonder Scott Adams’ Dilbert cartoon character, which exposes the absurdity of traditional management practices at the end of the twentieth century, is so successful!

Here is how employees in some Low-IQ companies described this downward cycle:

“It took an awful lot of time until we came to a decision. After top management finally got its act together, we had to work like crazy to implement the plan.”

“The people who make the most important decisions have no idea of what’s going on here.”
“Marketing is blaming product development for the mess—and vice versa.”

“We are always behind. Nobody is taking the schedule seriously anymore.”

“I’m busy doing all kinds of things—I just don’t find the time to do my ‘real’ job!”

“We are directionless. Everybody is pulling in a different direction.”

**The Bottom Line**

Does a high Organizational IQ help to turn things around? If yes, how strongly does it actually affect the bottom line? We answered these questions by measuring the Organizational IQ as well as the financial performances of a large number of high-tech companies.

We chose high-tech companies because, by any measure, the high-tech sector is leading the worldwide march into the Information Age. High-tech industries undergo an unprecedented rate of change driven by dramatic improvements in the underlying technology and global competition. Furthermore, high-tech companies are utilizing the latest information technology to improve communication and speed up decision making—technology that will soon become as common and crucial to business in every industry as the telephone.

Our analysis included two comprehensive worldwide surveys of the electronics industry, broadly defined. The surveys were conducted as part of a partnership between Stanford University, McKinsey & Company, and the University of Augsburg in Germany. In all, more than 2000 managers from 164 business units of large high-tech companies from Asia, Europe, and the United States participated in the effort. The level of detail in which data was collected allowed us to calculate the Organizational IQ for each of the participating business units and analyze its impact on financial performance.

In this dynamic industry, we found dramatic differences in performance between companies that applied Information-Age principles (high Organizational IQ) and those that did not. As Figure 1.2 shows, High-IQ companies are much more likely to survive and thrive in the Information Age than their Low-IQ peers. During the late 1980s, the
entire industry, including Low-IQ companies, grew at double-digit rates. When competition heated up and prices for electronic products came down in the early 1990s, the overall industry growth rate declined. High-IQ companies, however, continued to grow at a comfortable double-digit rate. Low-IQ companies, on the other hand, tell a very different story. At first, they grew at double-digit rates, albeit well below those of their High-IQ peers. If they found comfort in those rates, they were in for a rude awakening: in later years, their average growth rate fell below zero.

We found similar results when we looked at other measures of financial performance. Productivity is much higher at High-IQ companies than at Low-IQ competitors, and while High-IQ companies enjoy profits that are consistently above industry-average, their Low-IQ counterparts, on average, did not make any profits. Average returns on assets of High-IQ companies were about 10 percentage
points higher than those of their Low-IQ peers. Not surprisingly, many Low-IQ companies did not survive.

Other industries are experiencing similar trends. While the opportunities and challenges of the global marketplace are a daily reality for Sony, Cisco, and Dell, this is also the case for BMW, Nestlé, and GE. Employees at Compaq, IBM, and Xerox communicate through global intranets, but so do people at Charles Schwab, Ford, and British Petroleum. What’s more, high-tech components are built into many traditional products, thereby effectively blurring the boundaries between high-tech and low-tech industries. When auto industry executives, for example, talk about “convergence,” they mean convergence of the auto and electronics industries: electronics will soon account for one quarter of the cost of an automobile.

Companies that operate in slower paced environments can learn from those that have already adapted to the Information Age. If things are just beginning to move faster in your own industry and you can hear the clock ticking, chances are you still have a chance to beat the clock. This creates a tremendous learning opportunity for executives in slower moving industries: Many of today’s practices of successful high-tech companies are indicators of what will be important in other industries tomorrow. Every company will eventually have to learn to play by the rules of the Information Age, or else they might not stay around for much longer.

We present examples of companies from various industries that used High-IQ practices to improve their competitiveness. Chrysler applied Information Age management principles to build an effective “extended enterprise”—and dramatically increase the profit margins of its cars. Kodak’s black-and-white film manufacturing division returned to profitability by increasing the organization’s IQ. We dedicate an entire chapter (Chapter 9) to British Petroleum’s transformation from a traditional, slow-moving company into an agile, High-IQ competitor that is setting the pace for everyone else in its industry.

Looking at successful companies and trying to copy their practices is not enough, though, to understand the direction in which your organization needs to move. Many of “America’s Best-Run Companies” featured in the all-time business bestseller In Search of Excellence ran out of luck soon after the ink had dried. We would not be surprised if companies we feature in this book will be outrun
by even more agile and smarter competitors, too. We are convinced, however, that the winners of tomorrow will be High-IQ companies. To be among the winners, it is important to grasp the logic that’s behind a high Organizational IQ. That’s why we spend an entire chapter on each of the fundamental principles of Information Age management.