

REBUILDING THE CORPORATE GENOME

**UNLOCKING THE REAL VALUE
OF YOUR BUSINESS**

Johan C. Aurik Gillis J. Jonk Robert E. Willen



REMARKS FROM

Rebuilding the Corporate Genome

In unfamiliar terrain, it is very helpful to have a map in hand to navigate your way around the landscape. This book is a compelling and prescient look at the future of the modern corporation. While the corporate genome project may be a work in progress, the authors take important steps towards the goal of understanding how corporations really work, and how the corporate genome can be redesigned to exploit the full power of the information revolution. Read this book carefully, because this is as close as you will get to a key for unlocking innovation and value in your industry.

Mohanbir Sawhney

*McCormick Tribune Foundation Professor of Technology
Kellogg School of Management*

Rebuilding the Corporate Genome offers readers a number of important benefits. It details the shift in mindset required for setting strategy at lower levels of business aggregation. It is with this fresh perspective that companies can exploit opportunities for creating competitiveness and growth and simultaneously fend off unexpected rivals. In other words, through capability lenses, new horizons and new possibilities suddenly come into focus. Industries in transition become sources of advantage rather than simply uncertainty.

Jan Oosterveld

*Senior Vice President, Corporate Strategy
Royal Philips Electronics*

Compliments of A.T. Kearney

Rebuilding the Corporate Genome: Unlocking the Real Value of Your Business chronicles the breakdown of the corporation into increasingly smaller pieces and describes what that trend means for business executives. Innovators have long recognized that a company is more effective if it does not do everything from researching to manufacturing to marketing. But because transaction costs have plummeted, companies that focus intently on “capabilities,” or small units of value, now face unprecedented levels of opportunity if they focus on the value-creating areas of their business.

Using insights gained from client engagements and in-depth research, the authors describe their vision of a corporation that is both sleeker and far more potent. This book is written to help senior executives of both large and small companies exploit the splintering of the corporation to enhance—or perhaps even re-create—their strategies.

The following is an excerpt from *Rebuilding the Corporate Genome*, which will be published by John Wiley & Sons in fall 2002.

REBUILDING THE CORPORATE GENOME

**UNLOCKING THE REAL VALUE
OF YOUR BUSINESS**

Johan C. Aurik Gillis J. Jonk Robert E. Willen



John Wiley & Sons, Inc.
Publishers Since 1807

New York • Chichester • Weinheim • Brisbane • Singapore • Toronto

Acknowledgements

We are indebted to a great many people for the insight, effort and talent they contributed to this book. First and foremost, we are grateful to our clients, who shared with us their strategic visions and the pragmatic issues they faced in working toward them. Together, we shaped and reshaped our notions of how corporations would change in the coming decade. Their “views from the trenches” gave us a clearer understanding of the possibilities, and the realities, of corporate transformation.

We also received much valuable advice and support from within A.T. Kearney. Graeme Deans, Sigurd Lilienfeldt, Dolf Balkema, Fred Alkemade, Martijn Hoogeweegen, Pieter Klapwijk, Jean-Marc Saffar, Ray Hill, Jeff Herriman and Rob Smeets offered thoughtful commentary on our ideas and our words. Henner Klein not only did that, but also put up the equivalent of seed capital by creating the right conditions for the material to be developed. Fred Steingraber, chairman emeritus of A.T. Kearney, took our message to the World Economic Forum, where the reactions of many thought leaders to our ideas helped us to refine them. David Kirkpatrick of *Fortune*, who wrote about our ideas after they were presented at Davos, summed up our key ideas so succinctly that we borrowed his descriptions quite liberally as we worked to translate our concepts into user-friendly language.

Thanks are particularly in order to Juliette Miremont, who thoughtfully and relentlessly researched and drafted many sections of the book. We are grateful as well to Bethany Crawford, Nancy Bishop and Martha Peak, who kept a watchful eye on the story line and deftly edited revision upon revision. And finally, a sincere thank you to Matthew Holt and the editing team at John Wiley & Sons for taking us so ably through the difficult process of moving from thought to printed page.

Contents

PART I: THE CHANGING SHAPE OF THE CORPORATION

Chapter 1: The Corporation Breaks Down—Again

Chapter 2: Value Chains—Unchained

PART II: NEW THREATS AND OLD

Chapter 3: Rebuilding The Corporate Genome

Chapter 4: Strategy—Same Hammer, New Nail

PART III: VALUE CHAIN VARIABLES

Chapter 5: Physical Capabilities: The Search For Optimal Scale

Chapter 6 : Transaction Capabilities: Information Aggregation

Chapter 7: Knowledge Capabilities: The Art Of The Matter

Chapter 8: Capability Recombination: Creating A Killer Line-Up

Chapter 9: Industries Transformed

PART IV: THE JOURNEY TOWARD THE ENDGAME

Chapter 10: The Next Organizational Dimension

Chapter 11: So What?

Chapter 12: Getting Set To Go

Executive Summary

Imagine focusing on and nurturing the very best parts of your business—and nothing else. Coca-Cola is working toward that goal. So are Procter & Gamble and Disney. Their approaches are very different, yet they focus on a shared theme: They are dissecting their companies into tiny pieces and creating new and innovative ways to make the most of their best assets. They know—either intuitively or explicitly—that the days when one company researches, designs, makes and sells a product or service are numbered.

Why? Interaction costs have plummeted over the last several years (thanks to the Internet, but also to many other factors), making it far easier than ever before for individual pieces of a company to break free. If there are advantages to this happening—and in this book, we argue that the benefits will be substantial—the breakdown of the corporation is inevitable. This book, then, is not about how we can jump on the Internet bandwagon, but on our vision of the new corporation. It is already becoming sleeker—and far more potent. The implications are enormous: The competitive landscape will change, in some cases dramatically, necessitating new strategies for differentiation and growth.

When we state that the corporation will break down, we do not mean to imply that it will atomize. Rather, strategy formulation will increasingly take place at a lower level of business aggregation, and it will become clear that large parts of the current organization are not yet shaped accordingly. This means that we will have the opportunity to recombine parts of our companies and those of others to create far more competitive entities—to take individual genes to create new strings of more powerful DNA.

At this point, we should mention that this is not an empirical topic. Because this journey is just beginning, we have no database of companies to analyze. Rather, the thoughts we share with you are the culmination of many discussions with thought leaders and key clients that are implementing new strategies based on a more focused corporation.

We've likened this process to rebuilding the corporate genome because of the similarities we see between a corporate capability (a single element of a value chain, like manufacturing, branding or purchasing)

and a human gene. Just as each of our genes is a piece of DNA working as an instruction manual for a particular human characteristic, each business capability is a component of the value chain that makes a unique contribution to a company's output. The corporate genome holds the design key to what a company sells, to whom it sells and to what resources it deploys.

■ HISTORY REPEATS ITSELF

The corporate genome has been renovated before—several times over. We begin our book with a review of how corporations have become increasingly focused over time, moving from conglomerates to integrated corporations to collections of business units. Now, with the phase we're entering—the liberation of individual business capabilities—value chains undergo a transformation as well. A value chain is, after all, a set of capabilities (which we define as distinct activities that add value), many of which are purely about information. Now that product and information are less tightly linked, one value chain breaks into three distinct layers with specific characteristics: a physical value chain that consists of all the key production processes; a transaction chain that contains such information processes as ordering, scheduling, invoicing, and workflow facilitation; and a knowledge chain that encompasses the more creative elements, such as product design, branding and assortment.

■ NEW STRATEGIES AND OLD

When businesses are brought down to the capability level, new threats and opportunities emerge. Our second section begins by looking at the major threat that has become a familiar one in today's times: Anyone could become a competitor in any capability. (Witness the ease with which Intuit's Quicken elbowed its way into the financial services business.) This means that *every* capability in an organization must become world-class. Companies that remain responsible for capabilities at which they do not excel will lose ground to those that do. An insurance company that shines at marketing its policies is held back by the fact that its back-office services are inefficient. Conversely, an insurance company that

excels at back-office services loses an opportunity to grow if it does not sell this capability.

Strategies for creating a capability-driven organization fall into two main categories, and most large organizations will use both. They can focus on individual capabilities and make the most of them. Coke concentrates on leveraging its branding; Caterpillar has turned its logistics services into a subsidiary, Cat Logistics. Procter & Gamble has, since 1999, actively sought to exploit its “killer capabilities” in a number of fields. Most recently this has resulted in Emmperative, a joint venture with Worldwide Magnifi designed to make P&G’s marketing know-how available commercially to a broad corporate base. Elsewhere the company has licensed manufacturing technology and brand trademarks. The other strategy capability-driven organizations can employ is to work at the value chain level, assembling the most competitive line-up of capabilities possible to create a superior product or service. Apparel company Benetton combined its branding and marketing capabilities with Imagica’s paint fabrication expertise to create a unique series of paints in colors and textures you won’t easily find somewhere else.

At a first glance, the number of strategic options open to companies willing to pursue competitiveness at the capability level appears overwhelming. Adept prioritization will be critical. When a company considers its capabilities, it will find that some are crucial to its business value—such as patents for specialty chemical firms and brands for branded goods manufacturers. The company will find that others are only beneficial or just plain necessary, but do not contribute meaningfully to business value. Performing those capabilities badly would erode their competitiveness; doing them really well would hardly provide an edge.

The generic strategies now become easier to define based on how well the company performs the capabilities. The company can turn the value-producing capabilities at which it excels into businesses in their own right and leverage their strengths by selling the output to other companies. It can also explore exclusive link-ups and partnerships to leverage these strengths even further. On the other hand, if the company doesn’t excel at capabilities that produce little business value, it will have to consider how it can get the same contribution from a more competitively run capability. Pooling the capability with others in pursuit of scale is one possibility; outsourcing is another.

If we look at classic strategic frameworks, we see that a capability organization complements the work of Michael Porter and C.K. Prahalad. For example, a focus on core competencies still applies—but

without the restraints of current corporate boundaries. And in terms of competitive advantage, which Porter says is based on either differentiation or lower cost, it is far easier to achieve this edge in a single capability than in the entire set of capabilities that make up a traditional corporation.

■ PUTTING THE PIECES TOGETHER

One key to successfully creating a capability-driven organization is to understand how various capabilities can be optimized. In the third section, we return to the three value chains and discuss how the drivers behind them differ. Optimizing the physical value chain is a fairly straightforward process. Key goals of the chain include economies of scale and capital, flexibility and a decrease in the complexity of bringing goods to market. Companies can make the most of their physical capabilities through outsourcing or carve-outs if they decide not to focus on these elements—or by insourcing (selling the capability) if they choose to focus here.

The transaction value chain is in the midst of change. More and more transaction business processes are being automated and moved outside of company boundaries in search of economies of scale. The rapid rise of net markets illustrates how transaction processes can become the core of a standalone business. And consider the experience of UPS: At one time it took 14 days before the company had the billing criteria for a package. After it outsourced its billing data process to a Dallas vendor, it captured the information it needed in 24 hours.

The concept of optimizing knowledge assets is far less tangible—but the potential rewards are arguably the greatest. When knowledge capabilities (such as branding or design) are used creatively and effectively, companies can grow market share or charge a premium for their products. Some companies have developed innovative strategies for making the most of knowledge capabilities. Over the years, Ralph Lauren has cultivated one of the world's most widely recognized families of consumer brands by creating a visionary concept of its “American lifestyle experience,” supported by a distinctive approach to advertising. Companies with effective knowledge capabilities will enjoy a significant competitive advantage that will be extremely difficult to replicate.

Also in this section, we discuss in more detail the opportunities for

optimizing the output emerging from clusters of capabilities by recombining them. We will explore how prominent corporations, including GE, BMW and GM, are already bundling business capabilities to gain an edge. We'll also take the reader through the two major steps involved in recombining capabilities: pinpointing the value a company provides and choosing which capabilities to combine based on the requirements of the output.

Capability optimization possibilities, of course, vary significantly by industry. We'll look at some of the businesses at the forefront of the trend. In insurance, we discuss the transformation of back-office operations. In the oil industry, we look at optimization opportunities far upstream in the value chain (maximizing reserves and reservoir yields). In consumer goods, we assess the changes in the supply chain as the power struggle between manufacturers and retailers continues. And in pharmaceuticals, new industries are emerging: clinical research organizations and new genetic researchers. Finally, in electronics, we look at the rise of electronics manufacturing services.

■ THE TRANSFORMATION

The successful capability-driven organization will be transparent, agile and manageable. There will be a clear split between single-capability approaches and business propositions built on recombining capabilities along the value chain. Each capability or recombination will have its own leaders, markets and customers. In the fourth section, we look at how the capability-driven organization differs from the previously integrated models and the benefits it offers. We explore the implications for strategy, organization structure and governance as the capability organization evolves into a mixture of highly focused (but generally fewer) world-class business capabilities and a number of ventures focused on outputs. We also discuss how the market-facing nature of a capability organization ensures that companies continue—and even enhance—their focus on the customer.

We then consider in more detail the implications and benefits of the capability-driven organization. More focused and less compromised, from leadership to culture and capital, many aspects of the corporation are affected by the shift of business to the capability level.

Finally, we'll take you through the four key steps to setting the agenda for a capability-driven organization to create new sources of

growth and competitiveness. First, a company determines what business(es) it is really in. Second, it formulates appropriate capability and market venture strategies incorporating the full potential of individual capabilities. Third, it prioritizes capability and market venture strategies and assesses its partnering needs for those strategies. Fourth, it aligns its priorities with specific practical considerations such as resource availability. After this task, the company is ready for action.

■ HOW FAR WILL WE GO?

Some have argued that we are headed toward a completely atomized corporation—a “Hollywood model” in which producers, directors, actors and technicians come together to make a movie and then disband. This endgame is neither likely nor desirable for a number of reasons. First, competitive advantage shifts over time, forcing companies to constantly reassess which strategies to pursue and at least as important, in which strategies to invest. Second, this readjustment of strategies is also contingent on shifts in the product life cycle: As a product matures, strategies are adapted to maintain market share. Third, it simply takes time to build efficient supply and demand. Because of the entrepreneurial risk involved in making and reassessing these strategic compromises, we believe the corporate center will continue to play a strong role in the capability-driven organization. Last, but not least, we believe companies have little interest in ever reaching this atomized version of the endgame, where all pockets of windfall margin have flowed toward the end customer. Companies, and corporate centers in particular, will instead strive to create value chain “inefficiencies” through clever line-ups, exclusive link-ups, and recombinations, capable of trapping value in excess of the economic costs. Over time, this could prove to be the most challenging single task of the corporate center.

What will your strategy be as the corporation changes its shape? The answer depends on your industry, the competition, your strengths and many other variables. But if you take your business to a capability level, and redefine your strategy from there, you can find unprecedented and unexpected new sources of growth and competitive advantage.

The Corporation Breaks Down—Again

Corporations are built on compromise. The genetic makeup of a business—its informal (or rigid) culture, its obsession over growth (or with cost controls)—will inevitably fit some areas of the company better than others. But what if smaller pieces of a corporation could be considered on their own, at the equivalent of the individual gene level? Is it not far more effective to fine-tune one specific element of a business than an entire organization? Today, many corporations are beginning to do just that. In this chapter, we will:

- Look at historical shifts in the structure of the corporation—each toward a greater degree of focus
- Discuss why the current shift to a company organized around smaller units of value is possible, concentrating on falling interaction costs
- Present some early evidence of companies moving toward organizing around these individual corporate genes (which we call capabilities)
- Assess where certain industries fall along the spectrum, and why

■ THE CORPORATE GENOME

Through massive mapping efforts, we are learning how the human genome is sequenced. We can trace which individual genes in the genome determine the color of our eyes, and we are beginning to see glimmers of the links between our health and our genetic coding.

Perhaps in the future we shall be able to fend off certain diseases or influence our well-being, not by changing the conditions in and around our bodies, but by affecting the very material that determines our propensity for certain conditions in the first place. Why diet if a little genetic engineering can prevent obesity?

For the human genome, an aura of science fiction still surrounds such considerations. In the business world, however, it is clear that an era of corporate genetic engineering is already dawning. Rather than looking at the well-being of entire companies or business units, we can increasingly address the individual components of a business. We have called these corporate genes business capabilities. Just as each human gene is a piece of DNA working as an instruction manual for a particular human characteristic, each business capability is a component of the value chain that makes a unique contribution to a company's output. The corporate genome holds the design key to what the company sells, to whom it sells and to what resources it deploys. In effect, it defines what products and services corporations offer. Although human genes lack the capacity to make organisms on their own, business capabilities can create the corporate equivalent. We've seen both in our client work and in recent press accounts that more potent versions of capabilities can be created when they are taken out of their corporate genome context—and leveraged as separate genes in new and powerful ways.

■ INTERACTION COSTS IN FREEFALL

Most new ideas are not really new; more accurately they are creative extensions of existing ones. The concept of a new stage in the life of the corporation is, in large part, a new wrinkle that furthers the time-tested theories of British economist Ronald Coase. When Coase was awarded the Nobel Prize for economics in 1991, many were stunned: None of his articles contained a single equation or correlation coefficient. Yet his observations are as relevant today as they were in 1937, when he wrote *The Nature of the Firm*. In that insightful work, Coase explored two fundamental questions: Why do firms exist, and what determines the size of a firm?

Coase was the first to identify the significance of transaction costs in determining the shape of the corporation: A firm will tend to expand until the costs of organizing an extra transaction within the company

become equal to the costs of carrying out the same transaction on the open market. Similarly, if transaction costs were zero, theoretically there would be no firms. Search through articles in prominent business journals and reviews written in 2000, and you'll find Coase's name dozens of times (our Internet search yielded 98 "hits"). His recent surge in popularity is no coincidence, but rather a consensus around one of the irrefutable benefits of the Internet: that of lowering transaction costs.

Coase's law has a clear impact on the face of organizations—if interaction costs go down, the need to keep all business activities in-house diminishes. As transaction costs fell over time thanks in large part to developments in information technologies, Coase proved to be right: Corporations broke down into smaller parts.

The huge decline in transaction costs has been spurred by technological breakthroughs such as the telephone, television, telex, facsimile, and video conferencing, but also by more physical trends such as the widespread proliferation of air travel. This drop in costs went into freefall with the radically new use of the telecom infrastructure to create the World Wide Web. The Internet has been termed "disruptive" by some because it stormed onto the scene so quickly. The infrastructure and devices required to support it were already available. A personal computer, a phone line and a CD-ROM from an Internet access provider will get you online in no time. And once you're on the Internet, you can download all the software tools you need to carry out a large variety of tasks making use of the Net as an interaction medium. Contrast that with the "revolution" led by the advance of facsimile communication. Before it could take place, communication equipment had to be developed, manufactured, distributed and sold.

The Internet is also considered disruptive because it enables, sometimes even radically so, fundamental business process improvements. From both an efficiency point of view (the ability to reduce costs) and an effectiveness point of view (the ability to reach a large audience), it is clear that the Net will bring substantial benefits. The improvement potential and the suddenness with which it has been brought about together create an instant gap between yesterday's benchmarks and tomorrow's possibilities for many different business processes. One day, a company is best in its class; the next day, it finds itself embarking on a journey to become state of the art. In fact, it could find that competitors are winning the race to capitalize on the newfound opportunities.

In the end, the disruptive reduction in interaction costs introduces a new, irreversible discontinuity in our thinking about the shape of the

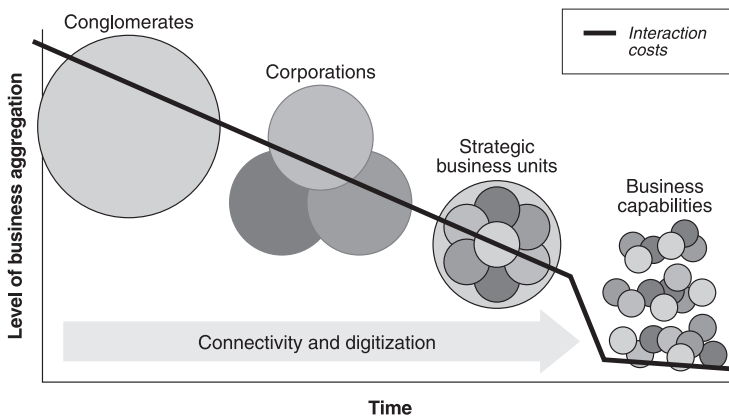
corporation. If Coase was right, we are looking at the split-up of the corporation, which can now be organized around separate business capabilities (see figure 1.1). For the purpose of this book, we define business capabilities as a set of value elements (built through knowledge, assets or processes) within the value chain that lead to a specific output. For example, manufacturing is a capability, as is product design or purchasing.

One day, a company is best in its class; the next day, it finds itself embarking on a journey to become state of the art.

In essence, the individual genes of the corporation, or the business capabilities, are turned into corporate genomes themselves, with their own definitions of products, services, and customers and ever more focused consumption of resources. Arguably, this is the true impact of the Internet. Rather than a simple means to improve efficiency and effectiveness, the Internet actually contributes to redefining business as we know it (ironically what e-commerce was expected to do before the end of the gold rush). Building a company around individual business capabilities is a far different proposition than organizing one around integrated business units.

It is time to rewrite the corporate genome.

Figure 1.1: The breakup of the corporation



The breakup of conglomerates into corporations and business units has paralleled the steady decline of interaction costs. The dramatic reduction in interaction costs brought about by the Internet will accelerate the breakup to the next level of business aggregation.

Source: A. T. Kearney

■ THE HARBINGERS OF CHANGE

The organizational form of the future has been described in a number of ways, including the knowledge-creating company and the virtual organization; the contemporary economy has been termed a business ecosystem or networked economy. These labels share a common thread: They signal a move away from an interest in markets and hierarchies to alternative modular forms. All seem to be responses to roughly the same drivers for change: globalization; deregulation; and technological advances. Most observers believe that the new forms of technology demand that organizations restructure and adopt new ways of working—not to succeed, but to survive. The advent of modular organizations, able to link up rapidly with other firms to form larger, industry-wide “constellations” of value, is an attempt to capitalize on the changes in the business environment introduced by the disruptive reduction in interaction costs.

As companies are being redefined, capital markets are also showing signs of change. The NASDAQ experimented two years ago with the valuing of ideas or single capabilities rather than entire corporations. Indeed, dot.coms were closer to single capability ideas than corporations; they had no customers, no assets, no profits. The willingness to value an idea that has not yet become a corporation clearly indicates that capital markets are ready to allocate resources at a level lower than the strategic business unit. The recent market corrections that affected the very companies based solely on ideas—and not assets, customers or profit—does not invalidate these concepts.

■ THE EVE OF THE CAPABILITY ORGANIZATION

The integrated corporation as we know it, typically organized around strategic business units, has outlived its usefulness. It is giving way to the rise of separate businesses, organized around the individual business capability—of which manufacturing, assembly, distribution, as well as development, design and branding, are all examples.

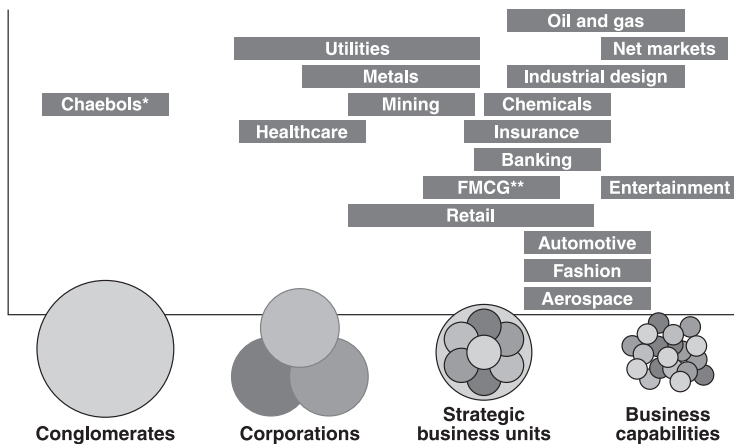
Consider Motorola and Ericsson, which decided to outsource the production of their mobile phones to Celestica and Flextronics, respectively. The significance of these deals is that Motorola and Ericsson have essentially defined the manufacturing of goods as a separate capability

and a distinct business with its own customers and resources—and in the process have become customers in this new industry. They have also made a strategic decision to concentrate on the capabilities of design and marketing, even though the production of mobile handsets was until recently considered a key aspect of the business. By narrowing their focus, they can concentrate on the pieces of the business at which they excel and add greatest value. Think of the possibilities for a corporation that identifies the most profitable capabilities it possesses—and leaves the rest to a company that can do it better.

■ THE VIEW ACROSS INDUSTRIES

Clearly, some industries have captured the lead in harnessing the power of information to rebuild their corporate genomes (*see figure 1.2*). While the business unit corporation dominates in most areas of business, conglomerates remain in some industries, and in others, leaders are already making the move toward the capability organization. There's a fair amount of gray area to consider, too. Businesses that might be considered conglomerates, like an ExxonMobil or a GE, actually exhibit many characteristics of a capability-focused organization.

Figure 1.2: Mapping of industries



Industries are at different stages of value chain disaggregation.

Note: *Chaebols are networks of powerful companies in Korea

**FMCG = fast-moving consumer goods

Source: A. T. Kearney

In the high-tech industry, Cisco and Dell are among those moving toward modular organizations. Dell (like Gateway) either buys products ready-made or purchases all the parts from suppliers and performs only the final assembly. Established competitors—IBM, Hewlett-Packard and Digital Equipment—used to produce most of their parts in-house. As a result, the smaller modular companies have outgunned their older rivals in profitability. Cisco's forte is designing and delivering managed network solutions by efficiently outsourcing much of its manufacturing and new product development to the contract manufacturers in its network. Today Cisco advises companies on how to choreograph the key steps in value integration—just as Dell has started to advise on its web-based integration initiative. For both of these companies, however, selling their core supply chain competency as a consulting service is only the first step toward leveraging their core capability. The next step to becoming a true modular organization will be to sell their expertise directly by managing flows for other companies.

In home furnishings retail, world leader IKEA has demonstrated the potential for building competitive advantage by redefining the relationships and organizational practices of its business and building a modular organization. In the IKEA system, each participant contributes a capability: the customer by assembling and taking the furniture home; the IKEA designers in the centralized design office in Almhult, Sweden, which work two to three years ahead of current product and which carefully select suppliers; and the 1,800 suppliers, located in more than 50 countries around the world, which offer low-cost, high-quality products in exchange for technical assistance, leased equipment, and advice on bringing production up to quality standards that hold up around the globe. As result, IKEA has built an integrated business system that matches the various capabilities of participants more efficiently and effectively than ever before. This organization form has enabled IKEA to keep costs and prices down and grow exponentially. Once a small Swedish mail-order furniture operation, IKEA is now the world's largest retailer of home furnishings.

The apparel industry is also well on its way toward modular organization. Nike, which has developed its own product line since 1972, has built its success on collaboration with its suppliers (which enable the company to introduce new products to market quite efficiently). Nike recognizes that its key capabilities are designing and marketing, rather than manufacturing, and relies on outside firms to make virtually all of its shoes. Nike is organized in a modular fashion, having disconnected

manufacturing from marketing, both in space and time. It continues to keep a small domestic manufacturing facility, but for good reason: Maintaining its capability for cutting-edge design is a strategic imperative.

The aspect in which Nike functions the most as a capability organization is in its relationship with athletes. By combining its sales and marketing capabilities with Michael Jordan's emblematic character, Nike created unique, differentiating value.

■ CONDUCTIVE CONDITIONS

Of course, a wide range of external factors, such as regulation, play a role in influencing which industries are ahead or behind. But for practical purposes, we will focus on what we see as two main circumstances that influence how much an industry will likely be affected by the reduction in interaction costs:

- The information intensity of the business
- The congruence among a company's capabilities

Products differ in their degree of information content: According to Michael Porter and Victor Millar, information intensity relates to the proportion of an organization's market offering and/or value chain that is information-based. All physical products include information about product characteristics, use and servicing. Some have relatively low information content (such as agricultural products). Others provide customers with substantial information (package delivery firms have extensive data relating to delivery locations and times). Other products do not have a main physical component, but are information-based, such as banking, newspapers and computer software.

The notion that information-intensive businesses like banks or insurance would be more affected by reductions in interaction costs is fairly straightforward. In businesses such as the chemical or mining industry, most assets are physical. On the face of it, the Internet has less to offer them. (This is not to say that there will be no impact. Net markets and other forms of transacting electronically are already making old economy trading processes far more effective, but these processes represent little expense compared to the costs of the feedstock, the operating costs and the capital costs.)

Another factor is the effectiveness of a single capability within its current environment. The greater the compromise it must endure, the higher the chance of disaggregation as interaction costs drop. Consider, for instance, the typical small insurance company. If it is like most insurers, it still develops and services the policies it sells. Its strategies for improving marketing and branding would probably not involve seeking economies of scale—yet that's an important goal for the servicing function of the company. This low congruence of objectives will eventually drive our small insurer apart. When it breaks into pieces, the sales and marketing entity can continue to aim for effectiveness; the policy and claims servicing will increasingly be outsourced to parties that have the right economies of scale. This dynamic in the insurance industry is accelerated as the move toward web-enabled systems increases the ratio of IT-related costs versus other expenses. As the ratio increases, so will the fixed cost component in the insurance company's cost column, increasing the sensitivity for economies of scale in the process.

Some companies, like the oil companies we mentioned earlier, have already reached a high degree of effectiveness and efficiency in their business capabilities. They will likely be affected less by the Internet.

If left to its own devices, an industry or company will move toward increasing information intensity and a greater level of capability suboptimization (*see figure 1.3*). Porter's observations in the 1980s that the information component of products was taking on a greater importance, and that a plethora of new products based almost exclusively on information were entering the marketplace, still hold true. It's also true that many business capabilities will be affected (in various ways) by new technologies. Chances that a company can keep its capabilities near their full potential without changing its business model are slim. The Internet sets companies back in terms of optimization because suddenly more effective and efficient processes are possible—processes they haven't yet adopted.

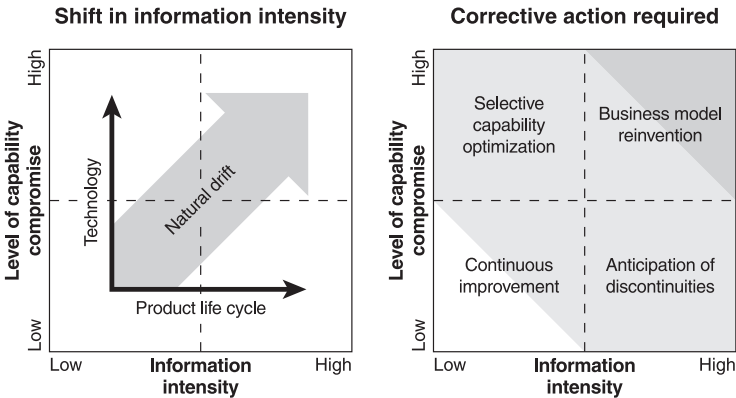
How can companies respond? The answer depends on where a company finds itself in terms of information intensity and capability suboptimization. When both can be considered high, there is a good chance that the company will have to fundamentally rethink its business model. At the other extreme are companies that have a low information intensity and have ensured that their capabilities fit within their business definition without too much compromise. They have the (relatively) easier task of anticipating possible disruptions in their capability configuration.

Companies with a high degree of information intensity, but little compromise among capabilities, must be ready to improve their capabilities in line with ever-decreasing interaction costs. Finally, companies with a high level of capability compromise that are not information-intensive probably need to innovate specific capabilities to bring them back to a more effective state.

Think of the possibilities for a corporation that identifies the most profitable capabilities it possesses—and leaves the rest to a company that can do it better.

It is interesting to note that as companies in the fashion industry redefine their corporate genomes, distribution maintains its role as the key capability for companies to control, given its impact on getting products to market in a timely manner. More generally, the ratio between fixed and knowledge assets is not static. As products mature and become more like commodities, differentiation tends to come from the knowledge-related components of the production process. The first car owners scrutinized the mechanical system of the car before choosing a model; today nobody buys a car without considering brand, customer service or options offered with the vehicle. The product life cycle heavily influences how to find new sources of competitive advantage in the new corporate genome. (More on that later.)

Figure 1.3: Why are industries ahead?



The activities of corporations often tend to gradually become more information intensive and less internally aligned. The degree to which this happens will determine the appropriate corrective action.

Source: A. T. Kearney

■ THE CEO'S AGENDA

While outsourcing foreshadowed the trend toward modularity (think Cisco or Nike), it is just one way in which a company can restructure its corporate genome. Carving out or spinning off departments that are not key contributors to final output are other strategies. The reciprocal aspect of this is that companies can consider selling single capabilities at which they excel to help solidify their competitive advantage. Because of the disruptive reduction in interaction costs, the role of individual business capabilities can now be more accurately identified in the total output a company creates. This transparency puts us at a lower level of aggregation than the corporate genome: Instead of the genome level we are at the individual gene level—focusing on corporate capabilities.

The Human Genome Project has provided us with a catalog of tens of thousands of genes, but scientists are left with the question: “What do proteins made by these genes actually do?” Similarly, the shift toward the business capability (or gene) level raises two of the most basic questions any CEO can ask or be asked. Now that capabilities can contribute more independently and transparently to output, it is time once more to reconsider two very fundamental questions: “What businesses am I really in?” and “How am I going to succeed?”

■ CONCLUSION

- The current shape of the corporation has outlived its usefulness. The forces that help shape businesses are in the midst of change; transaction costs are falling dramatically.
- Originally built on the conglomerate model, corporations have taken on increasing levels of focus. We now see glimpses of the evolution of a new stage of the corporation: the capability organization. In this model, businesses are broken down into separate capabilities, or elements of the value chain.
- The corporate genome holds the design key to what the company sells; to whom it sells; and to what resources it deploys. It is time to rewrite the corporate genome so the organization can focus on its key capabilities and key businesses. *Focus* is the key word.

A.T. Kearney is an innovative, corporate-focused management consulting firm known for high quality, tangible results and its working-partner style. The firm was established in 1926 to provide management advice concerning issues on the CEO's agenda. Today, our 5,000 employees worldwide serve the largest global clients in all major industries.

A.T. Kearney's offices are located in 61 cities in more than 35 countries in Europe, Asia Pacific, the Americas and Africa. A.T. Kearney is the management consulting subsidiary of EDS and can be visited on the Internet at www.atkearney.com.

AMERICAS		ASIA PACIFIC	EUROPE	
Atlanta	Minneapolis	Bangkok	Amsterdam	Madrid
Boston	New York	Beijing	Athens	Milan
Buenos Aires	Plano	Hong Kong	Barcelona	Moscow
Caracas	San Diego	Jakarta	Berlin	Munich
Chicago	San Francisco	Kuala Lumpur	Brussels	Oslo
Cleveland	São Paulo	Melbourne	Budapest	Paris
Detroit	Silicon Valley	New Delhi	Copenhagen	Prague
Los Angeles	Stamford	Seoul	Düsseldorf	Rome
Mexico City	Toronto	Shanghai	Frankfurt	Stockholm
Miami	Washington, D.C.	Singapore	Geneva	Stuttgart
		Sydney	Helsinki	Turin
		Tokyo	Istanbul	Vienna
AFRICA			Lisbon	Warsaw
Johannesburg			London	Zurich

For more information or additional copies, contact Marketing & Communications at:

A.T. Kearney, Inc.
 222 West Adams Street
 Chicago, Illinois 60606 U.S.A.
 1 312 648 0111
 fax 1 312 223 6200
 email: insight@atkearney.com
www.atkearney.com

EDS, the leading global services company, provides strategy, implementation and hosting for clients managing the business and technology complexities of the digital economy. EDS brings together the world's best technologies to address critical client business imperatives. It helps clients eliminate boundaries, collaborate in new ways, establish their customers' trust and continuously seek improvement. EDS, with its management consulting subsidiary, A.T. Kearney, serves the world's leading companies and governments in 58 countries.

Copyright 2002, A.T. Kearney, Inc. All rights reserved. No part of this work may be reproduced in any form without written permission from the copyright holder. EDS® is a registered mark of Electronic Data Systems Corporation. A.T. Kearney® and the A.T. Kearney® logo are registered service marks of A.T. Kearney, Inc. A.T. Kearney, Inc. is an equal opportunity employer.

ATKEARNEY®
 an EDS company

ABOUT THE AUTHORS



JOHAN C. AURIK leads A.T. Kearney's Benelux unit, with offices in Amsterdam and Brussels. He has more than 14 years of consulting and industry experience, which includes business strategy and organization, supply chain management, and organization effectiveness. He has led major consulting assignments for clients across the globe in a variety of industries, focusing on chemicals and pharmaceuticals, consumer goods and transportation. Mr. Aurik has written articles for and been quoted in *Fortune*, *Wall Street Journal Europe*, *Financial Times*, *The Economist* and *World Link*. He is a frequent participant and speaker at conferences worldwide, including the World Economic Forum and The Conference Board.



GILLIS J. JONK is a principal at A.T. Kearney. He has more than 10 years of industry and consulting experience, particularly with large corporate clients in the communications and high tech, financial services, consumer products, energy and chemicals industries. He has worked extensively in the areas of strategy, business redefinition, corporate governance, and organizational and performance measurement design. Mr. Jonk has written articles for and been quoted in business publications including *Fortune*, *Computer World* and *World Link*. He frequently gives executive briefings and guest lectures on next-generation business strategies.



ROBERT E. WILLEN is a principal at A.T. Kearney. He has more than 10 years of industry and consulting experience, focusing on large corporate clients in consumer products, financial services, information technology, telecommunications and transportation. He has extensive expertise in the areas of e-commerce and the digital supply chain, operational improvement, business process reengineering, enterprise and organizational transformation, organization design, strategic sourcing and supply chain management.