From Value Chain to Value Constellation: Designing Interactive Strategy

by Richard Normann and Rafael Ramírez
Strategy is the art of creating value. It provides the intellectual frameworks, conceptual models, and governing ideas that allow a company's managers to identify opportunities for bringing value to customers and for delivering that value at a profit. In this respect, strategy is the way a company defines its business and links together the only two resources that really matter in today's economy: knowledge and relationships or an organization's competencies and customers.

But in a fast-changing competitive environment, the fundamental logic of value creation is also changing and in a way that makes clear strategic thinking simultaneously more important and more difficult. Our traditional thinking about value is grounded in the assumptions and the models of an industrial economy. According to this view, every company occupies a position on a value chain. Upstream, suppliers provide inputs. The company then adds value to these inputs, before passing them downstream to the next actor in the chain, the customer (whether another business or the final consumer). Seen from this perspective, strategy is primarily the art of positioning a company in the right place on the value chain—the right business, the right products and market segments, the right value-adding activities.

Today, however, this understanding of value is as outmoded as the old assembly line that it resembles and so is the view of strategy that goes with it. Global competition, changing markets, and new technologies are opening up qualitatively new ways of creating value. The options available to companies, customers, and suppliers are proliferating in ways Henry Ford never dreamed of.

Of course, more opportunities also mean more uncertainty and greater risk. Forecasts based on projections from the past become unreliable. Factors that have always seemed peripheral turn out to be key drivers of change in a company's key markets. Invaders from previously unrelated sectors change the rules of the game overnight.

In so volatile a competitive environment, strategy is no longer a matter of positioning a fixed set of activities along a value chain. Increasingly, successful companies do not just add value, they reinvent it. Their focus of strategic analysis is not the com-

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pany or even the industry but the value-creating system itself, within which different economic actors—suppliers, business partners, allies, customers—work together to co-produce value. Their key strategic task is the reconfiguration of roles and relationships among this constellation of actors in order to mobilize the creation of value in new forms and by new players. And their underlying strategic goal is to create an ever-improving fit between competencies and customers.

To put it another way, successful companies conceive of strategy as systematic social innovation: the continuous design and redesign of complex business systems.

IKEA: The Wealth of Realizing New Ideas

For an example of what this means, consider the story of IKEA's transformation from a small Swedish mail-order furniture operation into the world's largest retailer of home furnishings. In an industry where few companies move beyond their home-country base, IKEA has created a global network of more than 100 stores. In 1992, these stores were visited by 96 million people and generated revenues of $4.3 billion. They have made IKEA into a growth and profit engine with an average annual growth rate of 15% over the past 5 years and profit margins that outside observers estimate at 8% to 10%, high enough to allow the company to expand without going to the stock exchange for funding.

But to focus on IKEA's low costs and low prices is to miss the true significance of the company's business innovation. IKEA is able to keep costs and prices down because it has systematically redefined the roles, relationships, and organizational practices of the furniture business. The result is an integrated business system that invents value by matching the various capabilities of participants more efficiently and effectively than was ever the case in the past.

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So too with the company’s stores. Free strollers, supervised child care, and playgrounds are available for children, as well as wheelchairs for the disabled and elderly. There are cafés and restaurants so customers can get a quick bite to eat. The goal is to make IKEA not just a furniture store but a family-outing destination.

At the front door, customers are supplied with catalogues, tape measures, pens, and notepaper to help customers make choices without the aid of salespeople. Products are grouped together to offer not just chairs and tables but designs for living. In addition, each item carries simple readable labels with the name and price of the product; the dimensions, materials, and colors in which it is available; instructions for care; and the location in the shop where it can be ordered and picked up. After payment, customers place their packages in carts to take them to their cars. If the package won’t fit, IKEA will even lend or sell at cost an automobile roof rack.

IKEA wants its customers to understand that their role is not to consume value but to create it. IKEA offers families more than co-produced furniture, it offers co-produced improvements in family living—everything from interior design to safety information and equipment, insurance, and shopping as a form of entertainment.

To call these services amenities is to underestimate their central significance to IKEA’s strategic intent: to understand how customers can create their own value and to create a business system that allows them to do it better. IKEA’s goal is not to relieve customers of doing certain tasks but to mobilize them to do easily certain things they have never done before. Put another way, IKEA invents value by enabling customers’ own value-creating activities. As one company brochure puts it, “Wealth is [the ability to] realize your ideas.”

To mobilize its customers to create value, IKEA must similarly mobilize its 1,800 suppliers, located in more than 50 countries around the world. In order to keep its side of the work-sharing bargain, IKEA must find suppliers that can offer both low costs and good quality. It takes enormous care to find and evaluate potential suppliers and to prepare them to play their role in the IKEA business system. Thirty buying offices around the world seek out candidates. Then designers in the centralized design office at IKEA’s operational headquarters in Älmhult, Sweden, who work two to three years ahead of current product, decide which suppliers will provide which parts.

Once part of the IKEA system, long-term suppliers not only gain access to global markets but also receive technical assistance, leased equipment, and advice on bringing production up to world quality standards. This effort got started in the early 1960s, when IKEA began to purchase components from Polish manufacturers. Today IKEA works with some 500 suppliers in Eastern Europe. There, as elsewhere, the company plays a major role in improving the business infrastructure and manufacturing standards of its partners.

For example, the company employs about a dozen technicians in a unit called IKEA Engineering to provide suppliers with technical assistance. The company’s Vienna-based Business Service Department runs a computer database that helps suppliers find raw materials and introduces them to new business partners.

Finally, what is true for IKEA’s relationships with customers and suppliers is also true for its internal business processes, which it designed to mirror and
support the logic of the whole value-creating system. A good example is IKEA's highly efficient logistics system.

The company's insistence on low costs from its suppliers has two important implications. First, the sourcing of components is widely dispersed. The back and seat of a chair may be made in Poland, the legs in France, and the screws that hold it all together in Spain. Second, the company must order parts in high volumes. Both factors make it imperative for IKEA to have an efficient system for ordering parts, integrating them into products, and delivering them to stores—all the while minimizing the costs of inventory.

The centerpiece of this system is IKEA's world network of 14 warehouses. The largest, 135,000 square meters in Älmhult, holds enough items to furnish 30,000 three-bedroom apartments. Most ordering is done electronically. Cash registers at IKEA stores around the world relay sales information to the nearest warehouse as well as to operational headquarters in Älmhult, where information systems oversee and analyze sales and shipping patterns worldwide.

Big as they are, these warehouses are much more than simple storage facilities. Instead, they operate as logistical control points, consolidation centers, and transit hubs. They play a proactive role in the integration of supply and demand, reducing the need to store production runs for long periods, holding unit costs down, and helping retail stores to anticipate needs and eliminate shortages.

The image of a value chain fails to capture the complexity of roles and relationships in the IKEA business system. IKEA did not position itself to add value at any one point in a predetermined sequence of activities. Rather, IKEA set out systematically to reinvent value and the business system that delivers it for an entire cast of economic actors. The work-sharing, co-productive arrangements the company offers to customers and suppliers alike force both to think about value in a new way—one in which customers are also suppliers (of time, labor, information, and transportation), suppliers are also customers (of IKEA's business and technical services), and IKEA itself is not so much a retailer as the central star in a constellation of services, goods, design, management, support, and even entertainment. The result: IKEA has succeeded, arguably, in creating more value per person (customer, supplier, and employee) and in securing greater total profit from and for its financial and human resources than all but a handful of other companies in any consumer industry.

The New Logic of Value

IKEA's extraordinary business innovation is made possible by a fundamental transformation in the way that value is created. But what is this new logic of value, and what are its strategic implications for today's managers?

To answer these questions, begin with the simple observation that any product or service is really the result of a complicated set of activities: myriad economic transactions and institutional arrangements among suppliers and customers, employees and managers, teams of technical and organizational specialists. In fact, what we usually think of as products or services are really frozen activities, concrete manifestations of the relationships among actors in a value-creating system. To emphasize the way all products and services are grounded in activity, we prefer to call them offerings.

Every economic revolution redefines the roles and relationships on which offerings are based. This was true during the industrial revolution when technological breakthroughs in the application of energy to useful work made possible the factory system with its highly specialized division of labor. Today, under the impact of information technology and the resulting globalization of markets and production, new methods of combining activities into offerings are producing new opportunities for creating value.

One implication of this phenomenon is that the very distinction between physical products and intangible services is currently breaking down. Does IKEA offer a product or a service? The answer is neither—and both. Very few offerings can be clearly defined as one or the other anymore. Increasingly, they involve some complex combination of the two roles.

Take the simple example of an economic transaction familiar to everyone: a cash withdrawal from one's bank account. Not so long ago, this transaction was clearly a service, a personal exchange between a customer, who went to his or her local bank, and a teller, who fulfilled the customer's request for cash. But in the last decade, this tradition-
Today the vast majority of cash withdrawals take place by means of automatic teller machines (ATMs). This change has reconfigured the transaction in two directions. First, the customer engages in a self-service activity not so different from the role of the buyer of IKEA furniture. Second, a great deal of attention, expertise, and activity is now devoted to the design, building, and maintenance of self-service support tools: the cash machines themselves, the plastic cards used by customers to access the machines, the computer networks connecting the machines to the bank’s information and accounting systems.

This is not merely a change in technology or even in the transaction itself. It is a change in the entire value-creating system. The scene, the script, the roles of the relevant actors have all been transformed. When ATMs were first introduced, some observers questioned whether customers would play their assigned part. Critics even speculated that customers would resist this attempt by banks to burden them with extra work, that customers would insist on retaining the personal interaction with the teller.

Such criticisms missed the point and for a simple reason. The reconfiguration of the cash-withdrawal transaction offered customers a qualitatively new kind of value. In particular, it eliminated traditional constraints of space and time. No longer do customers have to go to their local bank branch during business hours. They can get cash at any time and, with the proliferation of ATM networks, pretty much anywhere. Thus the vast majority of customers flocked to ATMs and adapted to them quickly and easily. So much so that, today, few remember the long lines that used to form at banks on Friday afternoons as depositors rushed to cash their payroll checks or get money for the weekend.

What is so different about this new kind of value? One useful way to describe it is that value has become more dense. Think of density as a measure of the amount of information, knowledge, and other resources that an economic actor has at hand at any moment in time to leverage his or her own value creation. Value has become more dense in that more and more opportunities for value creation are packed into any particular offering. A visit to an IKEA shop is not just shopping but entertainment. ATMs allow people not just to get cash but to get it anytime and nearly anywhere. A Swatch watch allows its owner not only to tell time but also to make a fashion statement (which explains why the average Swatch customer in Italy owns six).

The new logic of value presents companies with three strategic implications:

- First, in a world where value occurs not in sequential chains but in complex constellations, the goal of business is not so much to make or do something of value for customers as it is to mobilize customers to take advantage of proffered density and create value for themselves. That is why ATMs are so popular despite the critics. And that is why IKEA has become the world’s largest furniture retailer. To put it another way, companies do not really compete with one another anymore. Rather, it is offerings that compete for the time and attention and money of customers.

- Second, what is true for individual offerings is also true for entire value-creating systems. As potential offerings become more complex and varied, so do the relationships necessary to produce them. A single company rarely provides everything anymore. Instead, the most attractive offerings involve customers and suppliers, allies and business partners, in new combinations. As a result, a company's principal strategic task is the reconfiguration of its relationships and business systems.

- Third, if the key to creating value is to co-produce offerings that mobilize customers, then the only true source of competitive advantage is the ability to conceive the entire value-creating system and make it work. IKEA creates more value because it mobilizes more activities—of customers and suppliers. It reshuffles activities among actors so that actor and activity are better matched. To win, a company must write the script, mobilize and train the players, and make the customer the final arbiter of success or failure. To go on winning, a company must create a dialogue with its customers in order to repeat this performance over and over again and keep its offerings competitive.

Companies create value when they make not only their offerings more intelligent but their customers (and suppliers) more intelligent as well. To do this, companies must continuously reassess and redesign their competencies and relationships in order to keep their value-creating systems malleable, fresh, and responsive. In the new logic of val-
ue, this dialogue between competencies and customers explains the survival and success of some companies and the decline and failure of others.

Danish Pharmacies: Reconfiguring Business Systems

The new logic of value, and the dialogue between competencies and customers that it creates, presents every company with a stark choice: either reconfigure its business system to take advantage of these trends or be reconfigured by more dynamic competitors.

To exploit these trends, managers must take a number of steps. To begin with, they must reconsider the business potential of their chief assets: the company’s knowledge base and its customer base. Then they must reposition or reinvent the company’s offerings to create a better fit between the company’s competencies and the value-creating activities of its customers. Finally, they need to make new business arrangements and, sometimes, new social and political alliances to make these offerings feasible and efficient.

Consider the example of a business that at first glance may seem anything but a promising candidate for business-system redesign: Denmark’s network of 300 privately owned pharmacies. Just over ten years ago, Denmark, like many other European countries, began to reform and deregulate its state-funded health care system in an effort to put a brake on rising costs.

Danish pharmacies are privately owned but nonetheless heavily regulated. For centuries, they have enjoyed a legal monopoly on the sale of both over-the-counter and prescription drugs. In addition, the pharmacies have had the right to manufacture generic drugs and thus the means to compete with their suppliers on everything except patented pharmaceuticals.

The other side of the coin is that the Danish state sets pharmaceutical prices and that it does so in a negotiation that looks at drug margins in the context of overall pharmacy profits. Until recently, this negotiation was annual, which meant that if pharmacy profits suddenly rose, then the state would cut drug prices the following year to bring profits back into line and share this “windfall” with the taxpayers. In practice, pharmacy profits never rose or fell very much in the old days, because, while the system guaranteed a high degree of security, it did nothing at all to encourage efficiency, innovation, or gains in productivity.

Decades of this system also left the pharmacies highly vulnerable to competition if they ever lost their monopoly. Worse yet, the movement to control health care costs had prompted a call in several quarters for outright nationalization of the pharmacies in order to make regulation complete.

So when the political system began to focus on health care, the pharmacies and their professional organization, the Danish Pharmaceutical Association, thought they saw the handwriting on the wall— an altered industry, new competitors, new dangers—and decided to take a hard look at their assets to see if they could find new opportunities as well. They concluded that their network of local pharmacies had two potential but so-far under-utilized strengths.

The first was the corps of local pharmacists themselves, who were well-educated health care professionals. [Of course in Denmark, as elsewhere in the West, most critical decisions about patient health care were made by other actors in the system: primarily the physicians who wrote prescriptions and the pharmaceutical companies that developed new drugs.]

The second strength was the fact that the network of 300 pharmacies and 1,600 subsidiary outlets throughout the country represented a highly effective access channel to the Danish population. People respected and trusted their local pharmacists. What’s more, as the general public became better informed, people began to see that good health was not something they could delegate to the government or the health care industry. Health depended on personal behavior and individual lifestyle choices. The public was hungry for information and advice on how to live a healthier life.

These two strengths gave the pharmacists an opportunity to reposition their offerings and redefine their business. A pharmacy could be more than a place to buy drugs. It could be a comprehensive source of health information.

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and to reorganize the Association along lines that would help to achieve goals one and two.

Alongside these articulated aims, the Association had several tacit goals. For one thing, it meant to do everything possible to preserve its monopoly in pharmaceuticals retailing and its strong position in wholesaling. For another, it wanted to lower operating costs and increase pharmacy productivity—and to get legislation enacted that would give pharmacies some incentive to work more efficiently.

Efficiency had had a low priority for Danish pharmacies ever since the advent of strict state regulation. In setting prices, the state had always allowed for a modest profit. There had never been any reason to streamline operations. That now changed. If deregulation was coming, the Association would need to compete more effectively on every front, and it now sought a new legal environment that would allow it to benefit from its own efforts to improve efficiency and expand services.

In 1984, the Danish parliament changed the law. The state would set prices for two years at a time; if pharmacies could generate higher margins than predicted, they could keep the difference, at least until the next negotiation. Immediately, the pharmacies began to rationalize operations and cut staff. Net profits rose dramatically, with periodic setbacks as the Ministry of Health lowered prices.

At about this same time, the Association took two other steps to strengthen its position. First, in an effort to undercut attacks on its monopoly in drug retailing, the Association tried to downplay its direct competition with the pharmaceutical industry by setting up a subsidiary to do its drug manufacturing. Second, it managed to emerge from a series of mergers in pharmaceuticals wholesaling with a 25% controlling interest in a wholesaling giant that had 70% of the market.

Meanwhile, the pharmacists went to work on their retailing operation. In essence, the pharmacies wanted to broaden their traditional approach, delivery of conventional pharmaceutical “hardware” (in other words, selling drugs), into a concept they called Pharmaceutical Care, which would emphasize the “software” portion of health care delivery. They saw Pharmaceutical Care as a way of carving out and legitimizing a strong position within the health care system and, at the same time, of gaining access to the core of their customers’ value-creating activities in health maintenance.

Beginning in 1982 and continuing into the 1990s, the pharmacies and their national association devised and carried out a series of strategies that sought to involve private customers and health care institutions in new relationships and offerings.

The Association had to guard its monopoly, enlarge its role in counseling and preventive medicine, increase sales—and step on no one’s toes.

They expanded their range of products to include health and diet foods, high-quality herbal medicines, skin-care and other items, and they worked with suppliers to develop new quality-control measures and informational labeling.

They upgraded their customer-information services, installed computers to access health information, and published and distributed self-help books and preventive health care pamphlets.

They initiated their own antitobacco campaign and started selling literature and antismoking chewing gum. In 1986, they began offering stop-smoking courses that combined education and group therapy.
themselves surprisingly ready and able to modernize their operations, update their expertise, redefine their customer base, rethink their business, and tailor a fresh fit between competencies and customers both new and old.

It was just that neither the state nor the customers themselves were quite up to so much sudden change. The state moved so slowly in deregulating and reforming Danish health care (84% of health care is still in the public sector) that the Association’s innovations kept running into regulatory barriers and political pitfalls. And the customers that the Association had thought to mobilize around its new concept of holistic, preventive health maintenance – doctors, hospitals, long-term care facilities, even patients – tended to greet proposed innovation with suspicion and resistance almost regardless of the circumstances.

The antismoking campaign, for example, amounted to a test of physician response to the notion of pharmacies operating in a counseling role. To the Association’s disappointment, though to no one’s great surprise, the doctors viewed the program as an incursion on their own professional territory. They applied pressure and got the courses taken off the market.

Similarly, the pharmacists found little demand for their home health care packages for newly discharged patients, partly because hospitals and the public health-insurance agency viewed the pharmacies as competitors and declined to recommend the service.

Self-care packages also fared poorly. True, on Blood Pressure Day in 1991, thousands of Danes came to pharmacies all over the country for blood pressure and cholesterol readings, but as a general rule, people wanted their physicians to go on conducting even simple tests and recommending even basic treatments free of charge, the way they had always done in the past.

Clearly, the pharmacies were doing something wrong, and it wasn’t hard to figure out what. The new strategy itself was a good one as far as it went – reinvention of a centuries-old business to fit new social and commercial realities, development of denser offerings, more interaction with suppliers and customers to co-produce value. The problem was credibility.

Rethinking Business Alliances

Denmark’s individual pharmacies had always been private businesses, and their professional Association had always been a nonprofit organization. But in recent years, the Association had strayed further and further into outright commercial competition. With their customers, the pharmacists still had a reputation for professionalism and excellence. Within its industry, the Association was developing a reputation for sharp elbows.

The Association urgently needed to improve its relations with the political system and other stakeholders in the health care sector. To achieve this end, it had to behave a little less like a competitor and think more seriously and consistently about the co-productive constellations in which it wished to operate. It needed to rethink its concept of reconfiguration and push its new strategy further.

The Association is a purely voluntary organization of independent pharmacists. It has long had the authority to negotiate drug prices with the government, but it has never had the power to force its strategic thinking on individual member pharmacies. Yet the process of business reconfiguration is in great part a process of building new competencies. The government may have moved slowly on deregulation, but the pharmacies had also moved slowly in learning to understand their new roles in the health care complex.

In 1969, the Association had established an educational center outside Copenhagen to centralize the training of licensed pharmacy technicians and to offer its pharmacist members continuing, postgraduate education in new pharmaceutical developments. In the 1980s, as the Association’s new direction began to take hold, the school broadened its program to include courses in marketing, service management, customer orientation, and business skills. Now the old center also became a tool for promoting ideas and disseminating the Association’s new understanding of its business.

In 1990, to eliminate once and for all its direct competition with the drug companies, the Association sold its drug manufacturing subsidiary and withdrew from pharmaceutical production for the first time in its history.

In 1991, the Association further redesigned its organization and divided its activities in two.
Danish pharmacies expanded their range of products to include health foods and herbal medicines.

assembled its business assets – computer operations, wholesaling, and the profits from the sale of its drug-production subsidiary – into a separate company that operated according to normal business principles. Strategic planning and coordination of educational, informational, and social services remained not-for-profit activities and stayed in the hands of the Association itself, strongly backed by profits from business activities.

The Association also increased its past efforts to build alliances with Denmark’s national organizations for the elderly and disabled, as well as those for heart disease, epilepsy, asthma, and diabetes, among others. The Association now also works closely with the Danish Consumer Council in areas such as drug information and labeling.

The Association’s progressive efforts at health care-sector redesign won it international acclaim, and this exposure helped it to forge alliances with sister organizations across Europe and around the world. In 1985, the Association urged the World Health Organization to work more closely with pharmacists, and this led to the establishment of the Europharm Forum, linking pharmaceutical organizations in WHO’s European region. In 1988, WHO issued guidelines recommending that pharmacists assume a central role in health care systems as drug advisors par excellence to patients, physicians, and other professionals.

Perhaps most important of all, the Association is now taking part in an international, multicenter study of the pharmacist’s role in drug therapies. In Denmark, the research project is working with 300 asthma patients in a double-blind study of pharmacist-assisted asthma therapies. Because the study incorporates a new division of responsibility among patient, physician, and pharmacist, the Association has named two doctors – a professor of medicine and a clinical pharmacologist – to the project’s steering committee.

The result of these efforts has been striking. In 1992, the Association reintroduced its antismoking courses in a joint venture with Europharm Forum and WHO. This time, thanks to the Association’s alliances and its international standing, Danish physicians found themselves in de facto recognition of the pharmacies’ counseling activities. The program was a box-office success, and WHO wants to export it to other parts of Europe.

Also in 1992, the Association’s business subsidiary acquired 10% of Denmark’s only ambulance operator, creating a co-productive alliance between two businesses with the same set of customers. Among other things, this alliance has revived the home-care concept with a system for dependable delivery of drug, support, and security services to the elderly and to patients recently discharged from the hospital.

Overall, greater efficiency has allowed the pharmacies to increase their net profits steadily while reducing gross profits substantially, a strong argument for preserving their retail monopoly. Moreover, the Association, while one of the world’s smallest, is economically one of the world’s strongest, with more than $200 million in assets, not, of course, counting the value of the independent pharmacies themselves. In 1992, the Association developed a plan that pushes reconfiguration and co-production into the twenty-first century with new initiatives that saved Danish taxpayers more than $16 million the first year.

The pharmacies’ struggles are no doubt far from over. Their business environment is also a political environment, a fact that has complicated their efforts to work with other health care players to produce new offerings and enlarge the opportunities for value creation available to the average citizen-customer. Yet what the pharmacies discovered was that reconfiguration made more than political sense. It also made business sense. The re-invention of any business constellation is at least partly a matter of thinking through the social implications of change. In the end, new offerings have gradually allowed the pharmacies to get a far higher return on
their knowledge base and their customer base than they ever enjoyed in the past.

Increasingly, the companies that survive and thrive are those that look beyond their immediate boundaries to the social and business systems in which they are enmeshed and discover new ways to reconfigure those systems in order to reinvent value for their customers.

French Concessions: Of Customers and Competencies

In an economy founded on the new logic of value, only two assets really matter: knowledge and relationships or a company's competencies and its customers. Competencies are the technologies, specialized expertise, business processes and techniques that a company has accumulated over time and packaged in its offerings. But knowledge alone is not enough. Obviously, a company's competencies are worthless without customers willing to pay for them. Thus the other key asset for any company is its established customer base.

A company's relationship with a customer is really an access channel to the customer's ongoing value-creating activities. Any customer, whether another business or an individual, uses a wide range of inputs in order to create value. A company's offerings have value to the degree that customers can use them as inputs to leverage their own value creation. In this respect, then, companies don't profit from customers. They profit from customers' value-creating activities.

One of the chief strategic challenges of the new economy is to integrate knowledge and relationships—devise a good fit between competencies and customers and keep that fit current. In order to exploit established relationships, in other words, a company needs to enlarge its knowledge base continuously. It must invest in an ever-broadening range of knowledge resources and combine ever-expanding kinds of knowledge into its offerings.

What is more, these investments in new knowledge can become so large that a company's own offerings to its existing customer base are no longer adequate to recoup its investment. So the new knowledge tends to propel companies into new businesses in search of new relationships with new customers. And the cycle repeats.

For an example of how this dialogue between competencies and customers, knowledge and relationships, is shaping the nature of business competition, consider the recent evolution of two French corporations: Compagnie Générale des Eaux and Lyonnaise des Eaux Dumez. With 1992 revenues of $27 billion and $18 billion respectively, Générale and Lyonnaise rank 6th and 11th among France's largest companies. They are also among that country's most technologically dynamic and successful global competitors.

As their names suggest, Générale des Eaux and Lyonnaise des Eaux Dumez got their start by providing water to French cities and towns, and they are still very much in the water business. Between them, Générale and Lyonnaise provide drinking water to about 37 million French residents. In addition, Lyonnaise is now the biggest private water company in the world, with some 35 or 40 million consumers on 6 continents. Générale is the next largest. But to think of either as a water company entirely fails to capture the complexity and dynamism of their business or, for that matter, its fundamental logic.

In addition to water, Générale and Lyonnaise and their numerous subsidiaries provide cities and towns with everything from heating systems, sewers, and utilities to hazardous waste treatment, municipal construction, nursing homes, golf courses, and even funeral services. In Toulouse, for example, Générale not only manages the city's water distribution but has also developed a local recreation center known as Aqualand and is an investor in the city's cable television network. In Avignon, Lyonnaise manages the city's historical monuments, art museum, public gardens, and parks. And a Lyonnaise subsidiary, Pompes Funèbres Générales, is the world's largest undertaker, handling almost 40% of all funerals in France. Some of these businesses seem to follow logically from the business of water delivery, others seem to represent an aggressive effort at diversification. But, in fact, all these activities grow organically from a particularly French understanding of the business that Générale and Lyonnaise are in and of the special skills that they possess.

In most Western countries, public infrastructure is a public responsibility. City (or state or county) governments put out tenders for public-works projects to be built according to designs and specifications supplied by the city or its consultants and paid for using its authority to issue bonds and assume debt. Construction is carried out under contract with the city; operation and maintenance of the completed system is done by the city or contracted out, often piecemeal and for brief periods. From beginning to end, the brains controlling the project are on the city payroll or work for the city as consultants. This tender system is nearly universal...
French Concessions

From the very beginning, concessionaires took a broad view of their business. Napoleon III created Compagnie Générale des Eaux by imperial decree in 1853, and the Rothschilds bought 5,000 of its 80,000 shares, becoming the company’s banker. Générale won a 99-year water-distribution concession from Lyons that same year, added Nantes in 1854, expanded steadily into smaller communities, entered a complex agreement with the city of Paris in the early 1860s, began introducing new technologies in the 1890s aimed at the improvement of water quality as well as quantity, and eventually moved into heating, construction, and other services.

It was Crédit Lyonnais that founded Lyonnaise des Eaux in 1880 to operate water and lighting systems in Cannes. In 1891, Lyonnaise created its first subsidiary to build and operate a sewer system in Marseille. Throughout the remainder of the nineteenth century and through the first half of the twentieth, Lyonnaise engaged heavily in various types of infrastructure construction and operation, all of it by concession. By the late 1930s, Lyonnaise was preeminent in the operation of gas and electrical networks throughout France.

Although privately owned concessionaires provided the vast majority of public services in France by 1900, the concession system suffered a series of setbacks in the first half of the twentieth century. The first blow came in 1916, when municipalities were made liable for the unpaid debts of their concessionaires, and the second in 1926, when cities and towns were finally granted the right to own and operate their own public-service companies. As municipal companies began to replace local concessionaires, the great national concessions also began to vanish: the airlines in 1933, the railways in 1937. By 1939, concessionaires operated less than half of French public services, and in 1946, a wave of nationalizations stripped them of much of what remained, including most of the French electrical grid.

Then in 1951, public-service policy did another about face as the need to re-build infrastructure, neglected during and after the war, once again far outweighed the taxpayers’ capacity to foot the bill. The law was altered, concessions made a wholesale comeback, and concessionaires like Générale and Lyonnaise regained their raison d’être and their former expansive energy.

Today concessionaires – some of them partly controlled by state-owned institutional investors – operate not only the majority of public utilities in France but also toll motorways, bridges, marinas, ports, parking lots, hospitals, housing developments, and soon, perhaps, prisons.

in the Anglo-Saxon world and is standard practice in most of Europe as well.

But the French handle these matters differently. Since the nineteenth century, France has actively encouraged a separation between the political responsibility and the production responsibility for public services. While elected officials must answer to the voters for the provision of roads, utilities, and other amenities, and while water assets, for example, are publicly owned, private companies act as concessionnaires, designing the projects and specifications, raising the capital, building the infrastructure, managing the assets, bearing the risks, pocketing the profits, and assuming a large part of the local government’s relevant authority and responsibility in order to do so. In effect, the government – local or national – delegates virtually all its public-service duties and prerogatives to a private company, retaining only the political responsibility for governance. The social reasoning behind this separation of responsibilities is essentially twofold.

First, concessions have allowed an activist French state to finance extensive infrastructure development without using the public purse. Government simply delegated the obligation to build and paid for it with the right to operate. The first such concessions were granted by France’s strong central government in the nineteenth century for the construction of canals. [See the insert, “French Concessions,” for a brief account of their history.] Later, the state gave concessions for aqueducts, water distribution systems, market halls, and railways. Later still, concessions were used to construct gas and electrical networks and tramways. The concessionaire designed, built, and paid for these systems. The government owned them and granted a concession on their profitable operation for periods of 30 years or more.
Second, concessions have kept governments out of the commercial, industrial sphere and helped to protect them from spiraling debt and operational waste. Moreover, by tying profit to the efficient operation of the assets once installed, the concession system also made good use of the capitalist interests that sought to profit from public infrastructure construction. Until well into the twentieth century, French courts typically disallowed the efforts of cities to create municipal companies and operate public services for themselves.

But perhaps the concession system’s most profound effect has been on the concessionaires themselves: on the way they developed and how they now view their competencies and their business strategies. There is a French term that managers at both Générale and Lyonnaise use to describe their distinctive expertise: aménageur des villes, roughly translated “urban-systems designer and outfitter.” Put simply, the business of Générale and Lyonnaise is not any one service so much as the production of entire systems of services, and their core competence is not water or even utilities but rather the financial, social, legal, managerial, and technical engineering that ensures the smooth operation of public service infrastructures.

Developing Knowledge for Relationships

For French concessionaires, the principal business risk has never been the ordinary hazards of the marketplace: day-to-day competition, fluctuating demand, changing fashion. The great challenge (in addition to getting the concession renewed for another 30 or 40 years) has always been to find new services to offer an existing customer base and so to exploit further the concessionaire’s own investment in knowledge and knowledge workers. Générale and Lyonnaise have addressed this problem by developing a higher order interorganizational competence: their expertise is precisely that of developing, acquiring, and integrating a broad cross-section of technologies and knowledge and focusing them on their customers’ continuously evolving value creation.

Générale has some 2,000 subsidiaries and Lyonnaise about 720, ranging in size from very small to very large and grouped according to specialization or métier. Both Générale and Lyonnaise see themselves as necessarily multilocal companies, and their subsidiaries enjoy considerable autonomy. At the same time, both companies concentrate intent-
ing aggressively to compete on a global scale. Lyonnaise has built and managed water distribution networks in more than 50 cities on 6 continents. Over the last four years, Générale has developed a $60 million business managing waste-water-treatment plants and drinking-water-production facilities for small towns in the United States.

What's more, the companies' integrated solutions are proving to be a strong competitive advantage. In contrast to companies that specialize in only one aspect of public-infrastructure provision—such as Bechtel in engineering, Veba in energy systems, or Browning-Ferris Industries in waste management—Générale and Lyonnaise can provide cities and towns with an integrated package of offerings. The advantage for the client is that some activities—for example, cable television or hazardous-waste management—can take years to become profitable. The city cannot afford to take on the development expense itself, and a tender for this kind of infrastructure must take into account several years of operating losses. But long-term investments of precisely this kind are the stock-in-trade of concessionaires like Générale and Lyonnaise, which see such investments in the larger context of competence and customer development.

Public service packages that expand from one expertise to another have thus become not only a strong source of profit growth but also a powerful negotiating card in dealing with local governments. In the city of Macao, for example, Lyonnaise first won a contract for water distribution and waste-water treatment from the Portuguese colonial authorities. Then the company used its presence in the local market to acquire a concession for the generation and distribution of electricity. This in turn led to construction of a new electric power station, while the water concession led to the establishment in Macao of the largest water-analysis laboratory in Asia.

So far, Générale and Lyonnaise have tried to manage the interplay of competencies and customers under a single corporate umbrella: by creating new companies or acquiring existing ones and integrating them into the group. A complementary tactic, of course, is to form partnerships with outside companies that have developed different sets of resources. Such alliances permit the concessionaire to provide its traditional customer base with appropriately denser offerings without the expense of developing new expertise of its own. Moreover, alliances also provide conduits to new customer bases and allow companies to capitalize on their core knowledge by selling it to the customers of their allies.

Trends appear to be pushing Générale and Lyonnaise in this direction. Générale, for example, has formed alliances with several other European companies that are, in the words of one Générale executive, “clients as well as suppliers.” For that matter, Générale and Lyonnaise themselves, while relentless competitors at home, have in a few cases bid jointly on contracts to provide drinking water and waste-water treatment in other parts of the world.

However it takes place, the integration of different disciplines into viable global offerings is a skill that Générale and Lyonnaise have raised to the level of a virtual metacompetence. They have not merely learned to combine expertise in construction, engineering, finance, operational management, project management, risk management, infrastructure development, contractual law, social policy, and much more, they have made consistent use of the logic of public responsibility—clients’ logic—to leverage this bundle of value-creating activities.

The concession system is still unique to France, where it is regarded as unexportable, perhaps even untranslatable. Yet its obvious benefits to the taxpayer and its clear advantages for the quality of infrastructure construction and operation have made it an object of study around the world, and new jurisdictions are adapting it to fit new circumstances. The regulatory bodies of the EEC are giving the concession system particular scrutiny.

The secret of value creation is building a better and better fit between relationships and knowledge.

Regardless of its future, however, the concession system has already made hugely creative demands on concessionaires by requiring strategic skill on three levels: Concessionaires have learned to master the design and management of interconnected, co-productive offerings. They have learned how to mobilize value creation in their customers and partners by reconfiguring roles, relationships, and structures. And they have learned the art of perpetually reinventing value in a dialogue between competencies and customers. These are the skills that have kept concessionaires alive and profitable for more than one hundred years. And these are the skills that winning corporations will have to acquire in the post-assembly-line economy that is now emerging.

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