The Connected Company

Understanding the nature of large, complex systems is key to running a successful business in the 21st century.

By Dave Gray

illustration by Jennifer Hennesy

In, DESIGN MIND

I’ve noticed some troubling trends lately in the business world. A recent analysis of S&P 500 companies shows that when you triple the number of employees in an organization, its productivity drops by half. The average life expectancy for a U.S. firm today is just 15 years, down from 75 years on the heels of the Great Depression. What’s more, only 40 percent of companies survive more than a decade.

I believe all of this is happening because businesses are growing increasingly complex and are collapsing under the weight of that complexity. If we are to avoid such failures
in the future, we need to understand the nature of large, complex systems and let go of traditional notions of how companies function.

Historically, we have thought of businesses as machines and designed them with similar characteristics. We tend to expect them to perform a certain function, so we design and build them to perform that function for their entire lives. Either that, or we divide up tasks into machine-like parts. We separate departments and tasks from one another (finance, sales, operations, etc.), and we design work-flows that process inputs into outputs (raw materials into products, prospects into customers, complaints into resolutions, etc.).

The problem with this thinking is that the nature of a machine is to maintain consistency, while the nature of a company is to grow. Customers want new products and services. Different systems are needed. And companies are made of people, not levers and gears. Some executives may wish they could put their business strategy into a machine, push a button, and wait for results. But it doesn’t work that way. If you want results, you have to execute your strategy through people.

So, what happens if we stop thinking of the modern company as a machine and start thinking of it as a complex, growing, and connected system? What if we manage our companies as we do our cities? Cities are more productive than corporations. A study by the Federal Reserve Bank of Philadelphia shows that when the working population in a given geographical area doubles, its productivity (the rate of invention) goes up by 20 percent.

OK, you say, but cities are fundamentally different than companies. Just because this works for cities doesn’t mean that it will work for companies, right? Wrong.

Back in the early 1980s, right after the revolution in Iran, Shell was concerned about the future of the oil industry. Its strategists began to wonder what the organization would look like after oil, so they commissioned a study with some very interesting parameters. First, researchers examined large companies with relative dominance in their industries, companies similar to Shell in that regard. Second, they considered companies with lifespans of 100 years or more. Third, they looked at companies that had made a major shift from one industry or product category to another. The study was never published, but its findings are revealed in a book by retired Shell executive Arie de Geus, *The Living Company: Habits for Survival in a Turbulent Business Environment* (Harvard Business School Press).

De Geus looked at both extremes, companies that didn’t survive beyond a few years and those that have existed for more than 200 years. Interestingly, the long-lived companies have several characteristics in common with large cities:

**They are made up of diverse ecosystems.**

These old organizations are decentralized. They tolerate eccentric activities at the margins. They’re very active in partnerships and joint ventures. The company’s boundaries aren’t always clearly delineated, and individual departments or groups
have more autonomy over their decisions than they typically do in other global corporations.

**They have strong identities.**

Long-lived organizations give employees autonomy, but they are connected by a strong, shared culture. Everyone in the company understands its values and identifies with them. Management tends to promote from within in order to keep that culture strong.

**They actively listen and observe.**

Companies with longevity pay attention to the world around them and constantly seek opportunities to evolve. Because of their decentralized nature and strong, shared culture, it’s easier for them to spot change; to act quickly, proactively, and decisively; and to capitalize on opportunities.

Shell now counts itself among the relatively small number of large companies worldwide that have been around for more than a century. And de Geus attributes the firm’s endurance to the characteristics mentioned above, plus the near-heretical fact that the ability to make a profit has nothing to do with how long a company can exist. As he puts it, profits are “a symptom of corporate health” rather than a “predictor” of longevity. “Companies die because their managers focus on the economic activity of producing goods and services, and they forget that their organizations’ true nature is that of a community of humans.” For any connected company looking to outlast the typically short life span of the 21st century, this is advice to bank on.

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