

7

The DNA of the World's Most Innovative Companies

“Fast-growth companies must keep innovating. Companies are like sharks. If they stop moving, they die.”

—Marc Benioff, founder and CEO,
Salesforce.com

IN THIS BOOK'S first six chapters, we described how innovative *people* think differently and act differently to generate creative ideas for new products, services, processes, and businesses. Now we shift our attention to answering the question: how do *companies* comprising many people build the code for innovation? Without a doubt, executives worldwide face this critical question as they try to build innovation capabilities within their companies to generate growth opportunities. Before addressing this question, though, let's look at two other equally important ones. First, which companies are truly the most

TABLE 7-1

***BusinessWeek* list of most innovative companies (2005–2009)**

<i>Business Week</i> rank*	Company name	Innovation premium rank	Company name	5-year innovation premium
1	Apple	1	Amazon	57%
2	Google	2	Apple	52%
3	Microsoft	3	Google	49%
4	Toyota	4	Procter & Gamble	35%
5	General Electric	5	Starbucks	35%
6	Procter & Gamble	6	Microsoft	29%
7	IBM	7	Nintendo	26%
8	Nokia	8	Research In Motion	20%
9	Sony	9	Cisco Systems	19%
10	3M	10	Hewlett-Packard	19%
11	Amazon	11	3M	18%
12	Samsung	12	General Electric	10%
13	BMW	13	IBM	8%
14	Honda	14	Southwest	7%
15	Research In Motion	15	eBay	7%
16	Hewlett-Packard	16	Target	7%
17	Nintendo	17	Walmart	5%

The DNA of the World's Most Innovative Companies

<i>Business Week</i> rank*	Company name	Innovation premium rank	Company name	5-year innovation premium
18	Starbucks	18	Intel	4%
19	Target	19	Dell	4%
20	Intel	20	Nokia	-16%
21	Dell	21	BMW	-26%
22	Cisco	22	Toyota	-26%
23	eBay	23	Honda	-27%
24	Walmart	24	Sony	-28%
25	Southwest	25	Samsung	-29%

*5-year average rank; excludes private companies: Virgin at 16 and Tata at 25.

innovative and should serve as models of innovation? Second, does having an innovation capability (and a reputation for innovation) turbocharge a company's market value?

In 2005, *BusinessWeek* began creating a list of the world's one hundred most innovative companies. It based this list on a Boston Consulting Group survey of executives who voted on the companies. (See table 7-1 for the *BusinessWeek* top twenty-five innovative companies from 2005 through 2009.) A quick look at the list shows Apple at number one and Google at number two. OK, intuitively that sounds right. But based on the methodology, the list is largely a popularity contest based on *past* performance. Do General Electric, Sony, BMW, and Toyota really deserve to be on the list of most innovative companies today?

To answer these questions, we decided to develop our own list of innovative companies based on expectations of *future* innovations. We thought the best way to do this would be to see whether

investors—voting with their wallets and purses—could give us insight into which companies they believe are most likely to produce new products, services, or markets.

We teamed up with HOLT (a division of Credit Suisse that had done a similar analysis for *The Innovator's Solution*) to develop a methodology for determining what percentage of a firm's market value could be attributed to its existing products, services, and markets. If the firm's market value was higher than the cash flows attributed to its existing businesses, then the company shows an *innovation premium*. This is the proportion of a company's market value that cannot be accounted for from cash flows of its current products and businesses in its current markets. Investors give this premium because they expect companies to come up with profitable new products or markets (for details on how to calculate the premium, see the endnote).¹ It is a premium that every executive and every company would like to have.

So how does the *BusinessWeek* top twenty-five stack up using our methodology? Our analysis reveals a different ranking order. (See our ranking in table 7-1 based on the average innovation premium over five years.)² Our research puts Amazon at number one (with a premium of 57 percent), Apple at number two (a premium of 52 percent), and Google at number three (a premium of 49 percent)—results that are reasonably similar to the *BusinessWeek* list. But take a look at the bottom five. Samsung (−29 percent), Sony (−28 percent), Honda (−27 percent), Toyota (−26 percent), and BMW (−26 percent) generate cash flows from existing businesses that are actually higher than their current market value. In other words, investors are not anticipating growth from new innovative products or services and, worse, they're expecting that these firms' existing businesses will likely shrink or have profit levels drop.

As we analyzed these results in greater detail, we realized that investors not only cared about whether companies could produce innovations, but also cared about whether they could generate

profits from new products and services. For example, Sony (number nine on the *BusinessWeek* list) and Samsung (number twelve on the list) have historically produced innovations in the consumer electronics industry, but recently investors haven't seen large profits from them and don't expect to in the future. However, competitor Nintendo (number seventeen on the *BusinessWeek* list) has an innovation premium of 26 percent, which means Nintendo not only has done a better job of generating profits from past innovations (such as the Wii), but is expected to do so in the future, giving it a much higher ranking on our list. Automakers BMW, Toyota, and Honda rank low on our list not because they won't innovate going forward, but because they will face severe challenges generating any profits from their innovations. Not only will these companies continue to fight emerging existing competitors (such as Korea's Hyundai and China's Chery), but a slew of brand-new competitors coming into the market, including battery-powered car-makers Tesla and Coda.

Given the differences described, we decided to generate our own list of most innovative companies based on their innovation premium. (See table 7-2.) We focused on large public companies (more than \$10 billion in market value), since the *BusinessWeek* list likewise focused on large companies. Our ranking revealed that, looking into the future, Salesforce.com is ranked number one (Benioff's disruptive cloud computing company, featured in chapter 2), followed by Intuitive Surgical (makers of the da Vinci system of surgical robots, which we will describe later). These companies are right up there with Amazon, Apple, and Google, which ranked three, five, and six, respectively. Do Salesforce.com and Intuitive Surgical deserve to be at the top of the list? Investors seem to think so. Salesforce.com not only has led the charge with cloud computing but has also introduced the AppExchange—which *Forbes* called the “iTunes of Business Software” and which won awards from the Software & Information

TABLE 7-2

The world's most innovative companies (ranked by innovation premium)

Innovation premium rank	Company name	Industry/key businesses	5-year innovation premium
1	Salesforce.com	Cloud computing software for businesses (e.g., CRM)	73%
2	Intuitive Surgical	Da Vinci system robots for robotic-assisted surgeries	64%
3	Amazon.com	Online discount retailer, Kindle, cloud computing	57%
4	Celgene Corp.	Pharmaceuticals	55%
5	Apple	Computers, software, music devices, phones, etc.	52%
6	Google	Software, primarily for information retrieval (e.g., search)	49%
7	Hindustan Lever/Unilever Heavy Electricals	Household products	47%
8	Reckitt Benckiser Group	Household products	44%
9	Monsanto Co.	Seeds, genetically modified seeds, crop protection	44%
10	Bharat Heavy Electricals	Electrical equipment	44%
11	Vestas Wind Systems	Electrical equipment	43%
12	Alstom SA	Electrical equipment	42%
13	CSL Limited	Biotechnology	40%
14	Beiersdorf AG	Personal products	38%

The DNA of the World's Most Innovative Companies

Innovation premium rank	Company name	Industry/key businesses	5-year innovation premium
15	Synthes Incorporated	Health care equipment and supplies	38%
16	Activision Blizzard Inc.	Online and console game publisher	37%
17	Alcon Incorporated	Health care equipment and supplies	37%
18	Procter & Gamble	Consumer products (e.g., Downy, Gillette, Pringles, Dawn)	36%
19	NIDEC Corporation	Electronic equipment, instruments, and components	36%
20	Colgate-Palmolive	Consumer products (e.g., Colgate toothpaste, Palmolive soap)	35%
21	Starbucks	Restaurant and retail coffee-houses	35%
22	Ecolab Inc.	Hygiene chemicals, food safety, pest control	34%
23	Keyence Corporation	Electronic equipment, instruments, and components	34%
24	Essilor International Societe Anonyme	Health care equipment and supplies	34%
25	Hershey Co.	Chocolate, candy manufacturer	32%

Source: HOLT and The Innovator's DNA LLC.

Industry Association, *SD Times*, and others. The AppExchange offers more than a thousand applications for businesses in much the same way that the iPhone offers a multitude of applications for consumers. Moreover, Salesforce.com recently unveiled Chatter, a new social software application seen as “Facebook for businesses.”

Chatter takes the best of Facebook and Twitter and applies it to enterprise collaboration (as we describe in chapter 2).

Intuitive Surgical (number two) is an equally impressive innovator, having introduced robotic-assisted surgery to the world. For many surgeries—like prostate surgery—Intuitive’s da Vinci system has become the *modus operandi* in most operating rooms. But someday it could also play a major role in military surgical units. A surgeon in London could use it to operate on an injured soldier in any of the world’s military hot spots. The \$1.5 million da Vinci system allows surgeons to operate using three-dimensional visualization and four robotic arms that work with a precision that most surgeons cannot duplicate. This results in smaller incisions, fewer mistakes, shorter recoveries, and reduced hospitalization costs.

India’s Hindustan Lever (number seven) not only has been a consumer products innovator but, as described in chapter 3, has also used an innovative network-marketing approach to sell its products through thousands of underprivileged rural women throughout India. This has allowed Hindustan Lever to sell in over 135,000 villages and become the most trusted Indian brand—used by two out of three Indians. The U.K.’s Reckitt Benckiser Group (number eight) has been an innovation powerhouse with roughly 40 percent of revenue in recent years coming from innovations launched in the prior three years. Many ideas come through networking with outsiders via its IdeaLink Web site where it lists jobs that need to be done and requests solutions. The company is currently hunting for “methods for detection of parasites and other parasite eggs” among other things. Denmark’s Vestas Wind Systems (number eleven) recently won the “Innovation Cup” as the country’s most innovative company. It is the world’s leading supplier of wind power solutions and has spawned a number of innovations, including floating foundations for wind power stations at water depths of over thirty meters.

The DNA of the World's Most Innovative Companies

We believe our list better identifies the *current and future* innovators and is consistent with A. G. Lafley and Ram Charan's argument that: "An innovation is the conversion of a new idea into revenues and profits . . . In fact, there is no correlation between the number of corporate patents earned and financial success. A gee-whiz product that does not deliver value to the customer and provide financial benefit to the company is not an innovation. Innovation is not complete until it shows up in the financial results."³

If you agree with this statement, you probably prefer our ranking to *BusinessWeek's*.

The DNA—People, Processes, and Philosophies—of Innovative Companies

Drawing on a sample of companies that lead both lists, we dove deeply into the practices of some of the world's most innovative companies. We relied on both lists as models of innovation and emphasized those that appear in each (e.g., Amazon, Apple, Google, P&G) and those on the innovation premium list that may not be as well known globally for innovation (e.g., Salesforce.com; Intuitive Surgical; Hindustan Lever; Reckitt Benckiser).

We started by asking innovative founders at some of these firms, like Amazon's Bezos or Salesforce.com's Benioff: What makes your firm so innovative? What happens inside your firm that results in innovative new products, services, processes, or businesses? The first insight to emerge from these interviews is that founder innovators typically imprint their organizations with their own innovator's DNA. To illustrate, Bezos described how he surrounds himself with *people* at Amazon who are inventive. He asks all job candidates: "Tell me about something that you have invented." He adds, "Their invention could be on a small scale—say, a new product feature or a process that improves the customer

experience, or even a new way to load the dishwasher. But I want to know that they will try new things.” When the CEO asks all job candidates whether they’ve ever invented anything, it sends a powerful signal that invention is expected and valued. “I also look for people who believe they can change the world,” Bezos told us. “If you believe the world can change, then it’s not a stretch to believe you can be a part of it.”

He also talked about the importance of experimentation *processes* (as we described in chapter 6), stating that, “I encourage our employees to experiment. In fact, we have a group called Web Lab that is charged with constantly experimenting with the user interface on the Web site to figure out improvements for the customer experience.” Finally, he discussed the importance of culture, saying that most company’s big errors are “acts of omission” instead of acts of “commission.” “It’s the opposite of sticking to your knitting. It’s when you shouldn’t have stuck to your knitting and you did,” says Bezos. So he encourages people at Amazon to ask “why not?” when considering whether to launch something new. “It’s very fun to have a culture where people are willing to take these leaps. It’s the opposite of the ‘institutional no.’ It’s the institutional yes. People at Amazon say, ‘We’re going to figure out how to do this.’”

To sum up: Bezos looks for people with an inventive attitude like his. He personally experiments as a way to generate innovative ideas, so he’s created processes at Amazon that encourage and support experimenting by others. And he asks why not and is willing to take leaps (as he did leaving D.E. Shaw to start Amazon; he certainly did not “stick to his knitting” when he made that career decision). Not surprisingly, this philosophy has become part of the culture at Amazon in which others are also expected to ask why not and take leaps.

Our observations at Amazon and other highly innovative companies confirm insights about the genesis of organizational

culture made by MIT's Edgar Schein in his classic work *Organizational Culture and Leadership*. Schein argues that organizational culture arises during the early stages of an organization when it faces particular problems or must accomplish particular tasks. For example, the challenge might be: "How do we develop a new product?" or "How do we deal with this customer's complaint?" In each instance, organization members responsible for resolving the problem sit down and decide on a method for resolving it. If the method works successfully, the organization likely uses it again and again when faced with similar problems and it becomes part of the organization's culture (a taken-for-granted way for how the organization addresses certain problems). If it does not work well, the organization's leaders will devise a different method for solving the problem and continue to search until a method successfully solves it. As any particular method for solving a problem is profitably used over and over, it becomes part of the culture. Not surprisingly, Schein observes that a company founder has a significant influence on the methods chosen to solve the organization's early challenges. Ultimately, if the founder's methods for reaching solutions work reliably and successfully, they come to be taken for granted for accomplishing particular tasks in the company. It is through the repeated, successful application of the founder's initial solutions that they become embedded in the organization's culture.

The point, of course, is that the DNA of innovative organizations likely reflects the founder's DNA. As we talked to innovative founders about creating innovative organizations and teams, they repeatedly discussed the value of populating the organization with *people* who are like them (in other words, innovative), *processes* that encourage the innovative skills they depended on (e.g., questioning, observing, networking, experimenting), and *philosophies* (a culture that encourages everyone to innovate and take smart risks). Our observations of other companies on

our most innovative list revealed the same thing. This led us to develop a set of *working hypotheses* about the DNA of innovative organizations that we put into a 3P framework of innovative organizations.

People

First, we found that innovative companies were often led by founder entrepreneurs, leaders who excelled at discovery and who were not bashful about leading the innovation charge. In fact, key leaders of these companies showed a higher discovery quotient than leaders of less innovative companies (more on this in chapter 8). We also found that highly innovative companies had stronger discovery skills in all management levels and each functional area of the organization. They also monitored and managed the appropriate mix of decision makers' discovery and delivery skills throughout the innovation process (from ideation to implementation). Finally, they often had created a senior-level position focused on innovation, which is what Lafley did when he hired Claudia Kotchka as vice president for design, innovation, and strategy. Put simply, these companies were filled on average with far more people who excelled at the five discovery skills described in chapters 2 through 6, and they were wiser than less innovative companies about the strategic use of discovery-driven people.

Processes

Just as inventive people systematically engage their questioning, observing, networking, and experimenting skills to spark new ideas, we discovered that innovative organizations systematically develop processes to encourage these same skills in employees. Most innovative companies construct a culture that reflects the leader's personality and behaviors. For example, Jobs loves to ask "what if" and "why" questions and so do Apple employees. Lafley has devoted hundreds of hours to observing customers, just as anthropologists observe tribes, and has put specific processes in

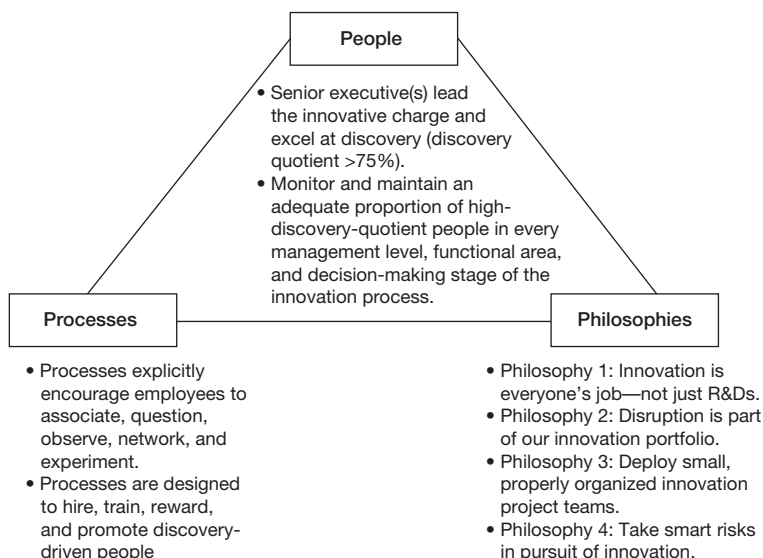
place for observing customers at P&G. Benioff is a great networker, and at Salesforce.com he introduced Chatter and other networking processes to help employees network both inside and outside the company for unusual ideas. As an exceptional experimenter himself, Bezos has tried to institutionalize experimentation processes at Amazon that allow employees to go down blind alleys in pursuit of new products or processes. By creating organizational processes that mirror their individual discovery behaviors, these leaders have built their personal innovator's DNA into their organizations.

Philosophies

These organizational discovery processes are supported by four guiding philosophies that imbue employees with the courage to try out new ideas: (1) innovation is everyone's job, (2) disruptive innovation is part of our innovation portfolio, (3) deploy lots of small, properly organized innovation project teams, and (4) take smart risks in the pursuit of innovation. Together, these philosophies reflect the courage-to-innovate attitudes of innovative leaders. They believe innovation is their job, so they constantly challenge the status quo and aren't afraid to take risks to make change happen. To illustrate, the most innovative companies don't relegate R&D to one unit. Instead, virtually everyone, including the top management team, is expected to come up with new ideas, which results in a democratization of innovation efforts. The notion that everyone should innovate and challenge the status quo is supported by a risk-taking philosophy, such as IDEO's "fail soon to succeed sooner." The remarkable companies we studied not only show a tolerance for failure; they see failure as impossible to avoid and a natural part of the innovation process. Moreover, since they believe that everyone can be creative, they work hard to keep units small so that each employee feels empowered and responsible for innovating (Amazon's Bezos employs a "Two Pizza Team" rule, meaning that teams should be small enough—six to ten people—to be adequately fed by two pizzas).

FIGURE 7-1

People, processes, and philosophies in the world's most innovative companies



In sum, our interviews and observations revealed that innovative companies build the code for innovation right into the organization's *people*, *processes*, and guiding *philosophies* (the 3P framework that comprises the DNA of innovative organizations.) (See figure 7-1.)

Of course, the devil is in the details in making the 3P framework real to employees. Many organizations *say* that they have innovative people and that they encourage innovation through the company's processes and guiding philosophies. But they can be clueless about how to embed them deeply into the organization's culture. In this chapter, we have identified some of the world's most innovative companies and provided a framework to help you see how creative organizations do it.

How Innovative Is Your Organization or Team?

To get a quick snapshot of your organization or team's innovation profile, take the following short survey (1 = strongly disagree; 2 = somewhat disagree; 3 = neither agree or disagree; 4 = somewhat agree; 5 = strongly agree). Remember to answer based on the people, processes, and philosophies that *actually* exist within your organization or team, not what you would like them to be.

People

1. Our organization or team has leaders with a well-known track record for generating innovative ideas for new processes, products, services, or businesses.
2. Our organization or team actively screens for creativity and innovation skills in the hiring process.
3. Evaluating an employee's creativity or innovation skills is an important part of the performance appraisal process within our team or organization.

Processes

4. Our organization or team frequently engages in brainstorming to generate wild or very different ideas by drawing analogies from other products, companies, or industries.
5. Our organization or team encourages team members to ask questions that challenge the status quo or conventional ways of doing things.

6. Our organization or team cultivates new ideas by giving people frequent opportunities to observe the activities of customers, competitors, or suppliers.
7. Our organization or team has instituted formal processes to network outside the company to find new ideas for processes or products.
8. Our organization or team has adopted processes to allow for frequent experiments (or pilots) of new ideas in search of new innovations.

Philosophies

9. Our organization or team expects everyone to offer creative ideas for how the company should change products, processes, and so on.
10. People in our organization or team are not afraid to take risks and fail because top management supports and rewards risk taking.

To score your survey:

Add up your total score for all ten questions. Your team or organization scores very high on the innovator's DNA if the total score is 45 or above; high if the score is 40–45; moderate to high if the score is between 35 and 40; moderate to low if the score is 30–34; low if the score is below 30. The short survey is drawn from a more systematic organization or team assessment available from the authors; for more information, see <http://www.InnovatorsDNA.com>.

As we mentioned at the beginning of this chapter, chapters 2 through 6 focused primarily on how individual innovators do their work. In this chapter, we've suggested that the innovator's DNA has some clear organizational analogs and applications. We think there are equally compelling applications to teams at work (where the principles apply as they do with individuals and organizations). We believe this because the boundaries between what an organization is and what a team is are becoming increasingly blurred in our fast-paced world where organizations like Vodafone start entirely new business units with twelve people. Is that an organization or a team? We see it as a classic case of both, since an organization is a collection of teams, and the innovator's DNA works well in each. In the three chapters that follow, we describe in detail how innovative organizations and teams build the code for innovation into their people, processes, and philosophies.