CHAPTER 2

The Efficiency-Innovation Dichotomy

While on the road to efficiency, we have inadvertently created organizations that are inhospitable to innovation.

Innovation: Fantasy and Fact

If this were a better world, innovation would happen like this: A bright-eyed, respectful, and tidy young employee would bounce into your office with a category-breaking idea. You would immediately see its value. You would heap praise on Tidy, who would accept it with becoming bashfulness and never need any other recognition. You take Tidy's great idea up the line where you are hailed as a genius for seeing its potential. Amid acclaim and intimations of promotion, money is thrown at it and everyone drops everything to help you get the idea to market. You hit the market in record time, make mega-bucks, and *Fortune* is asking for an interview.

Well, if you work in a company where that happens, write to me. I want to work there too.

Instead, innovation is more likely to happen like this: Even if the first part of the scenario holds—Tidy bounces in, you get how big the idea is immediately—your next step is to take it up the line. Your own boss is a bit of a stick in the mud. She shakes her head. "I dunno. Can't see it working, can you? I mean, it's not sticking to our knitting, is it?"

You convince her to let you take it to the next level. You do a stunning presentation but a VP raises objections. "How can you be sure of the ROI projections? Haven't you inflated the market potential? This prototype is awfully hard to use. I don't think customers will go for it." You answer as best you can but feel the room going in his direction. You know his objections aren't for the good of the company. If you're successful, it will take business away from his area. His real objection is that it won't be good for *him*.

The VP convinces everyone they should look before they leap. You are asked to gather more consumer data. "But," you protest, "with category-breaking ideas, consumer data aren't any good. Because it's new, customers have to try it before they decide if they like it!"

"So you want us to buy a pig in a poke?" demands your nemesis.

"No, of course not, but…" The tide has turned against you and you have to agree to collect data you know won't tell you anything.

You launch the market study. While the focus groups are running, you get wind that the nemesis VP is quietly campaigning to tank your idea. He has even got to your boss. She comes in. "Do you really think this will work?" she asks, wringing her hands. "After all, it's so new. Will the customer understand how to use it?"

You answer as you have a million times before. "If we do our marketing well, I'm sure they will. It's not that complicated. It's just new."

"But Nemesis says we'll confuse the marketplace. Then everybody will suffer." Your boss leans forward and lowers her voice. "Confidentially, Nemesis has told me most of the other VPs are negative. He's pretty sure that when you go back, there won't be much support around the table. And if that's the case…" she shrugs. "You know our fearless leader. He won't go out on a limb."

"Just like you," you think to yourself. But you just repeat, "I'm sure the data will convince the committee."

Meanwhile, back at the ranch, Tidy is getting restive. "Why don't they get off their butts and approve it?" he demands. "And I want stock options for this." Threats about taking his marbles and going home are unspoken but in the air.

Knowing that the data will not give you the knockout punch you need, you start campaigning with the other VPs. You buttonhole every one you can and talk up the great and exciting potential. You let them paint the picture of the new idea as a way to take Nemesis down a peg or two. Most of the VPs are noncommittal but interested.

On the day of the pitch, you downplay the data, which are all you predicted—i.e., not helpful—and instead, give an impassioned plea for the idea as the wave of the future. You show the committee how they

can be market leaders. Over the objections of Nemesis and with the tepid support of your own boss, the funding is approved and you breathe a sigh of relief.

You race back to Tidy with the great news. He looks down and shuffles his feet. "Gee, that's great, boss, but…." He looks up. "I just accepted an offer from e-Product. I was going to give my notice today."

"You can't take your idea with you!" you explode. "It belongs to the company!"

Tidy shrugs. "I know. But I've had a couple of others—completely different. E-Product has already lined up the funding."

You go back to your office and close the door. You know as well as Tidy that the basic prototype isn't enough. He's the only one who really understands how it works and how to take it to a viable product. Even if you could get a replacement tomorrow, just getting the person up to speed will take months. And you promised to hit the market by spring!

A knock at the door. Nemesis sticks his head in. "Congrats on the funding," he said, his shark teeth spread into a grin. "Didn't think you'd pull it off." He walks in and puts out a hand. You shake it gingerly.

"No hard feelings, of course," he says.

"Of course," you reply weakly. "After all, I'm going to need your help to market."

Nemesis nods. "We'll do everything we can to make this a success. After all, what's good for the company is good for us, no?"

You straighten. "I really appreciate that, Nemesis. Why don't we meet next week to get the ball rolling?"

Without a blink, Nemesis shakes his head. "Next week…no can do. I'm in Stockholm."

"Can Linda sub for you?"

"No, no…Linda's fully committed. Couldn't let her go."

"What about Ralph?"

Again, the shaking of the head. "I don't think Ralph has the big picture you'd need…no, not Ralph."

"Well, when would you be available?"

Nemesis shrugs. "I dunno—what with that acquisition fallout. I'm pretty booked right now." He straightens. "But call Vicky and see where she can fit you in. I'm sure we can do it for such an important project." With that, he waves and is gone.

You put your head in your hands. You know the drill. You'll call Vicky and, wonder of wonders, Nemesis is completely booked for months and months. And nobody can commit Nemesis's resources except him. You know he's just begun to fight.

The Drive for Efficiency

The old guard protecting its turf against a new idea is a challenge for any innovation. However, in addition to office politics, there is something else—even more embedded in the way we do things—that makes creating and sustaining innovation difficult. It is our drive for efficiency.

Ever since Frederick Taylor held a stopwatch over some hapless factory worker, a large part of our work has been focused on efficiency. Because efficiency turns into profit, we constantly ask ourselves, *How do we get more done in a shorter time?* Today, that drive is captured in our obsession with speed. First to market is the winner. We need speed to compete in this restless global economy. It's the early bird on steroids with faxes and e-mails, FedEx, and downloading to help.

Because we've worked at it, we're pretty good at it. We have discovered that Taylor's time and motion studies might have been all right for the simpler manufacturing work of the last century, but today we need more sophisticated ways. And we have hit on three very effective ones. The first is vision. Rather than ordering everyone to go in the same direction, policing to make sure they do, and punishing those who don't, we engage staff in a common vision because, over the longer haul, it is a much more efficient and effective way to reach our goals. We also have leaders who are, by and large, pretty talented in getting us to the finish line. Finally, we use teams because, although it may take more time up front to build a team, they are marvelously efficient in the longer term to get things done. So visionary companies, good leaders, and well-functioning teams all help us be as efficient as possible. And every one of them contributes to a climate that is relatively unfriendly to innovation. How can that be?

Innovation and Visionary Companies

Visionary companies are ones we all want to work in. They have a strong sense of where they're going; everyone is committed to that goal. Often the leader is held in high esteem, and his or her pronouncements have the ability to move the organization quickly in new directions. Loyalty is a strong feature, and the sense of everyone pulling together keeps people eager to come to work and contribute. Recognizing how fundamentally efficient this kind of culture is, companies have made many efforts to create it.

But, for all its positive characteristics, it has downsides. A company strongly committed to a goal will suppress, push out, or just not recruit those who think a different one is better. Research shows that

like-minded people talking only among themselves (as would happen in a company with a unity of purpose) reinforces their intolerance for different ideas. Conference Board studies have concluded that organizations have difficulty developing a new perspective because they are blind to their own assumptions. C.J. Nemeth, in a *California Management Review* article, goes even further by saying that "there is evidence that the atmosphere most likely to induce creativity [innovation] is one diametrically opposed to the 'cult-like' corporate culture."[1]

This has a ring of truth, don't you think? Ever been in a company where high quality is valued? What do you think of a person who does less than his best? If you're a really fine human being, you might just shrug and think, "To each his own," but if you're like the rest of us, you're more likely to have dark thoughts about his parentage and personal habits. You might avoid working with him because he won't put in the extra hours and you'll be stuck with everything. In a culture that reinforces high quality, there is very little sympathy for someone who just gets by. And yet, isn't it possible that sometimes this guy is right? Is it always necessary to do things perfectly? Aren't there times when good enough is good enough, especially in our first-to-market era? But an organization committed only to the best and one that silences those who think differently will have little ability to recognize, much less act on, that trend.

Discouraging different views might be effective as long as the current goal is viable. But once that goal is achieved or, worse, has become irrelevant while you're still working toward it, a culture that suppresses dissident views will have no one around to point that out.

"Wait a minute!" you may be scoffing. "There are lots of companies that are both innovative and have strong, committed cultures. Like the ones profiled in the last chapter." True. But Nemeth believes that these companies are successful because the *leader* is the innovator. If that's the case, having a committed and loyal company to implement the idea is a distinct advantage.

But there is a downside: The leader had better be right. Because, right or wrong, her idea will be implemented. There are many examples of committed people enthusiastically embracing a disastrous innovation. In one of China's Great Leaps Forward during the reign of Mao Tse-tung, the populace was asked to kill sparrows as they were considered a menace. It undertook the task so vigorously that sparrows were almost driven to extinction there. The results? The people busy

[1] Charlan Jeanne Nemeth, "Managing Innovation: When Less Is More," *California Management Review* (Vol. 40, No. 1, Fall 1997), p. 64.

killing sparrows didn't plant crops. What crops were planted were destroyed by insects that were usually eaten by sparrows. There was widespread crop failure and famine.

Thus, single-minded implementation of a bad idea can have tragic consequences. But even in the business world, stupid ideas beautifully executed cost us precious time and money. Remember Scott Paper's disposable dresses, Crystal Pepsi, or Nullo internal deodorant (yes, you really were supposed to ingest it to remain odor-free). And what about Ford Pintos or the Earring Magic Ken doll—presumably the suitable companion to an alternative Barbie? Not to mention the Edsel. And yet, someone at some point thought these were great ideas and all made it to market.

The strength of visionary companies is their ability to implement. But their capacity to foster and sustain innovation throughout the organization is limited. It's kind of like life, isn't it? Visionary companies have traveled down one road—to commitment and singleness of purpose—with many positive results. But they have the weakness of their strengths. The very focus that makes it possible to deliver quickly and well also makes it harder to take a different direction when needed.

Am I Advocating Tossing Vision and Teams?

Not at all. Vision and teams have been and are positive forces in organizations. However, I am asking you to consider that, while not bad, they might not be unadulterated good either. We haven't spent much time questioning whether they have a dark side. Albert Hirschman, in his excellent book *Exit, Voice and Loyalty*, pointed out that danger. He noted that "happy slaves"—those who are committed to the way things are—can agree to participate in what they might otherwise see as morally unacceptable systems. How otherwise can we explain Nazi Germany, South Africa under apartheid, or the southern United States before the Civil War or even well into the 1950s? These were not entire nations of immoral and malevolent people, but rather those who did not question the status quo. So while commitment to the ways of an organization or of a society is generally a good thing, without those lone voices who speak against the comfortable, the acceptable, and the normal, great evil can be missed by otherwise responsible and caring people.

Innovation and Senior Management

You'd think senior managers would encourage innovation since they know its importance. But T.J. Watson, founder of IBM, is famous for stating categorically that not more than five computers were ever going to be needed in the world. In 1977, Ken Olsen, founder of Digital Equipment Corporation, declared that "there is no reason anyone would want a computer in their home."[2] Even innovative GE can slip. In 1994, one of its employees, Glen Meakem, proposed that suppliers compete for GE's orders in live, open, electronic auctions. GE couldn't see the point. Five years later, Meakem's company, FreeMarkets Inc., had a market cap in the billions by running live, open, electronic auctions. GE missed leading the business-to-business Internet revolution. So how is it that these talented managers and companies missed such big boats? Because they are often unsuited, both by training and inclination, to be its champions.

The manufacturing era may now be passing into history, but we still have a management system built on its premises. A manager was trained to plan, organize, direct, and control. Innovation? Something the engineers and researchers did. The regular people just followed their bosses' lead.

Even today, it's still important to plan, organize, direct, and control. In fact, it's an even bigger challenge for e-businesses than their old-economy counterparts. In the past, to make your business dreams come true, you usually needed some kind of manufacturing capacity. Once you were set up to make cars, it wasn't possible for your employees to make teacups. But CEOs of e-businesses know that "at [companies like] Yahoo, Intuit or eBay, where the primary capital equipment is brainpower, employees can start to pursue radically different strategies in an eye blink.…Soon your assets are utterly uncoordinated, unless the e-CEO reinforces the strategic focus relentlessly."[3] Even today, a normal manager's business is not about continually shifting focus or strategy. It is largely about implementing an already agreed upon one.

In addition, a manager has to know what to expect so she can tell when things are going wrong. But paradigms that help you decide whether things are on track can also prevent you from seeing things that don't fit. To illustrate the point, let's talk sunspots. Even without telescopes, Chinese astronomers reported their existence *centuries* before Europeans. Were the Chinese smarter or did they have better

[2] Mark Borden, "Thinking about Tomorrow," *Fortune* (November 22, 1999), p. 170.
[3] Geoffrey Colvin, "How to be a Great E-CEO," *Fortune* (May 24, 1999), p. 107.

eyesight? Unlikely. The major difference was that Chinese astronomy did not preclude the possibility of change in the cosmos whereas the prevailing belief in Europe was that the heavens were immutable. Chinese astronomers could see sunspots because their paradigm allowed it while European astronomers could not because theirs precluded it.

Innovation, by definition, is not about normal business. It is always about doing things a different way. But normal business is what managers are good at. Their ability to run a business efficiently may contribute to their inability to see innovative possibilities. A paradigm, be it astronomical or manufacturing, is helpful in making sense of the world, but it can also make it harder to see what doesn't fit.

You Can't Tell Where an Innovation is Going

The long-term consequences of any successful innovation cannot be foreseen. Peter Drucker says, "Innovation always has the power to change everything. The unexpected always happens."[4] Danny Hillis, a Disney fellow and technology thinker, agrees that "those of us close to technology have been certain of the uncertainty for a long time."[5]

History gives us many examples of the unpredictable consequences of innovation. The invention of the printing press led to mass literacy. For the first time in human history, it was possible to access knowledge directly, without the involvement and interpretations of a third party. People could decide for themselves what they thought about the world. This ability to question the established order led to the Protestant Reformation, which was based on an individual's right to make his own way to God. And if you could decide your relationship to God, how much more logical to also determine your relationship with the state. And that led to democratic movements. So, the printing press, invented originally simply to avoid the onerous task of copying out by hand, led to democracy that still shapes our world.

Other ways that innovations have changed our lives in unexpected ways:

- In the early part of the 20th century, the spread of the car caused the need for horses to disappear so quickly that the conversion from hay to other crops prompted an agricultural revolution.

[4] Brent Schlender, "Peter Drucker Takes the Long View," *Fortune* (September 28, 1998), p. 170.
[5] Danny Hillis, "Why Do We Buy the Myth of Y2K?" *Newsweek* (May 31, 1999), p. 12.

- The introduction of radio blurred regional differences, wiped out vaudeville, and enabled the rise of national consumer brands.
- The invention of batteries helped to bring down totalitarianism—cell phones are used to communicate between rebels when the dictators control the telephone lines.
- The U.S. South grew into an economic force to be reckoned with when air conditioning became widespread.

And finally my favorite—a prediction about the course of innovation itself. In a lovely burst of confidence, Charles Duell, a former commissioner of the U.S. patent office, said in 1899 that "everything that can be invented, has been invented."[6] Guess his face is red wherever he is today.

Innovation and Teams

Teams have often been touted as the engine of innovation in organizations. On the theory that many heads are better than one, they're often formed to tackle some vexing problem or suggest a new way to do things.

However, my observation has been that teams rarely make startling decisions or come up with significant leaps forward. They don't make worse decisions nor have worse ideas than their managers; they just don't have better ones. I was part of a group that was supposed to come up with an innovative way to restructure a company. Everyone worked long and hard, but in the end, the "new" organization looked suspiciously like the one in place. This group wasn't any less innovative or insightful than the average, but things like turf and fear of change and protecting sacred cows got in our way.

Research shows that groups tend to be less creative than individuals alone. People are very swayed by others' opinions. The public "yes" of some can override a person's private "no." This can be a downward spiral. Even though I'd prefer to say "no," I feel pressured to say "yes." My public "yes" encourages still others to disregard their own feelings and agree also. Groups are inclined to adopt the strategy the majority favors to the exclusion of other possibilities. Thus, they are relatively unable to detect original solutions.

Groups will tolerate a range of opinions but only if they stay within the boundaries of the accepted philosophy. That is, as long as you believe in quality, your opinions are welcome. If you don't, your views

[6] Borden, op. cit., p. 170.

will be censured. In democracies, the danger of allowing only certain opinions is well recognized and special pains have been taken to address the problem. Freedom of speech guarantees me the right to my opinion even if others vehemently disagree, even if my world view is repugnant. But while we have this right as citizens, it is not so clear this tolerance extends to our work life. In organizations, freedom of speech is a rarer commodity. Thus, while groups are excellent vehicles to generate commitment and get things done, they are not necessarily stellar at coming up with the best ideas. They can impose a kind of groupthink—a Proctoid culture—that discourages innovation.

So we have been marvelously successful in creating efficient business practices that get us to our goals in the shortest time possible. But as *Fortune* columnist Stewart Aslop points out, "Much of the technology underlying our efficient economy was developed under conditions that did not demand an immediate return on investment." The microprocessor was developed at AT&T Labs. Local area networking, GUI, laser printers, and graphical word processes came out of Xerox's Palo Alto Research Center, the mouse out of Stanford Research International, the Internet protocol from the Defense Advanced Research Projects Agency, and the main protocol for the World Wide Web from a British programmer at a Swiss research lab. "Everyone's so busy being efficient and profitable," Alsop says, "that I wonder where we'll get those stupid, outlandish ideas that will drive growth beyond the Internet."[7] I wonder too.

Order and Innovation

In the 1400s, the Chinese had all the technology needed for an industrial revolution—iron and steel, gunpowder, the compass, the rudder, the printing press, drills for natural gas. But they did not exploit them for that aim. They had already created an enormously successful empire based on a Confucian view of the world in which order and hierarchy were paramount. It was a self-contained and self-satisfied world that was reluctant to trade with the West (desperate to get China's porcelain and silks) because everything it needed or thought it would need could be found within its borders.

So despite the existence of these inventions early on within its society, China continued along its stable path until the West used the rudder and compass to sail into the country's water and gunpowder, iron, and steel to conquer it.

[7] Stewart Aslop, "What's a New Economy without Research?" *Fortune* (May 15, 2000), p. 92.

Ways around This Dilemma

At some intuitive level, organizations have recognized the problem of creating and sustaining innovation internally and have tried several ways to address it. They have isolated their innovators in skunk works—units effectively walled off from the rest of the company, exempt from normal rules, and given the task of designing some desired innovation. There have been some legendary successes, such as Apple's Macintosh. But the evidence is building that the way the Mac came into existence was an anomaly rather than a beacon. Researcher Eric Trist studied large organizations such as General Foods and found that skunk works and other pilot projects almost never influence the rest of the organization.

In fact, a *Harvard Business Review* article concluded that "new-venture divisions, skunk works, and the musings of research fellows are no more likely to engender an industry revolution than is an annual planning process."[8] Going even further, *Fortune* columnist Michael Schrage believes that "skunk works are…a signal of management that has given up on innovation.…Top management effectively acknowledges that their corporation is incapable of internal organic innovation."[9] So skunk works may not be the answer to our innovation prayer.

Clayton Christiansen, in a very influential book called *The Innovator's Dilemma*, proposes another tack. He notes that success often hogties innovation—that is, companies with a leading technology usually do a good job improving what they have but rarely develop a new one to displace the old. Too many vested interests (money, time, talent, assets, mind-set) are tied to the existing product line. His solution is to set up innovations as separate companies outside the main one.

Along similar lines, *The Economist* has noted the trend for large companies to buy up smaller ones entirely for their innovative product or service. Thus, innovation is happening less and less within established organizations.

This may be part of the New Business Model—that innovation happens in start-ups that then make mega-bucks selling the idea to a company with a distribution channel. And in the big picture, at the level of market and economy, that's fine since innovation happens no matter what.

However, this trend is the death knell for today's integrated corporations. If innovation is fundamental to profitable, sustainable growth and it occurs outside established organizations, we face multiple problems down the road. For one, if the ability to identify and develop new

[8] Gary, Hamel, "Strategy as Revolution," *Harvard Business Review* (July/August 1996), p. 80.
[9] Michael Schrage, "What's That Bad Odor at Innovation Skunkworks?" *Fortune* (December 20, 1999), p. 338.

ideas resides largely outside the organization, we will gradually lose the capacity inside even to recognize the potential of an innovation. Even if the innovation is recognized as valuable and therefore bought, an anti-innovation culture will tend to reshape and mold the innovation to what already works. A non-innovative culture will make it difficult to fully exploit an innovation brought in from the outside.

Finally, if organizations become largely distribution networks (and even that might be questioned, given the Web), how interesting is the work going to be and how easy will it be to hold onto knowledge workers? Post offices are not usually considered to be challenging places to work.

Interestingly enough, Lester Thurow, professor of management and economics at MIT and former dean of the Sloan School of Management, doesn't believe that start-ups are the engines of innovation. Rather, he thinks that "new ideas don't come from small companies but from big companies who refused to use them."[10] So big companies may be sitting on gold mines that, if they could exploit them, would lessen their reliance on outside innovation considerably.

No matter how you slice it, it seems that organizations that do not foster their innovative capacity will be tomorrow's losers in the new economy. It's a high price to pay for efficiency today.

Summary

Some days you just can't win. Here you have been doing all kinds of things to be as effective as possible, and some—while efficient—are actually relatively ineffective if we're talking innovation. C.J. Nemeth of the Institute of Management, Innovation and Technology believes that "creativity and innovation may require a culture different from and opposed to that which encourages cohesion and loyalty."[11] I'm not sure I agree that a total change is necessary and I'm not suggesting you make a wholesale trade of efficiency for innovation. Companies need both. But it is the yin and yang of organizational life. If you're too efficient, you stifle innovation. If you're not efficient enough, you go out of business. I'm not arguing that you abandon one for the other, but we have pursued productivity for many decades. While it has provided us with tremendous benefits, the pendulum may have swung too far.

What we need is a culture of innovation that will generate new ideas and make it easy for them to be adopted and brought to market.

[10] Lester Thurow, "Knowledge as the New Organizational and Societal Wealth in the 21st century," Address to Canadian Centre for Management Development, November 7, 2000.
[11] Nemeth, op. cit., p. 59.

We want a culture where innovation occurs *because* of the culture and not *in spite* of it. Organizations have become more efficient; they now need to become more innovative. Chapter 3 will talk about that.

Main Points

- A visionary organization can actually prevent innovation from flourishing.
- Efficient managers can do the same.
- Work groups or teams also stifle innovation by a kind of "groupthink."
- Skunk works and buying your innovation may not work.

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