

Lecture Text

Christopher A. Bartlett: Managing People for Competitive Advantage

(edited for clarity)

Introduction

Let me see if I can position what we're going to do today and take you on a voyage I've been on myself over this last decade and a half.

The history of the modern corporation is less than 200 years old. I'd like to tell that history in three chapters. The modern corporation really has existed only since the 1830s. Certainly before that we had people who made stuff and sold stuff. There were inventors, there were merchants, there were trades people and crafts people, and there were distributors.

With the coming of the Industrial Revolution, for the first time organizations had to do all of the above. They had to develop, manufacture, distribute, sell, and market their own products. So for the first time companies were required to have a bigger umbrella to integrate across more of the value chain.

The coming of limited-liability legislation, which occurred about the same time in the United States and in key developing countries—the U.K., Germany, and France—around the 1830s gave birth to the modern corporation as we know it.

Halley's Comet Cycle of Management

I'm going to suggest that there have been three big chapters in the modern corporation, each of them punctuated by about seventy-five-year histories. And, as luck would have it, they happened to be punctuated at the time—when Halley's Comet comes by Earth. Halley's Comet comes by every seventy-five, seventy-six years.

So this is the Halley's Comet theory of management. If I wanted to sell a popular book, I think this is what I'd do: *Halley's Comet Cycle of Management*. Halley's Comet actually passed by Earth in 1830. And this was the time of birth of the modern corporation. For the first time, companies became multi-functional. There were companies who were developing, manufacturing, and marketing their own products. And that innovation, this multi-functional organization in which the general manager for the first time, on top of these functional managers, coordinated and integrated that activity, gave birth to seventy-five years of growth, all the way through the Industrial Revolution and beyond.

When Halley's Comet came by Earth again, in the early part of this century, in 1911, some companies had started moving beyond their initial business. Companies like DuPont had moved from explosives to chemicals, to paints, and to plastics. And they were finding this sort of functional organization, in which their management sat on top, was running out of steam; it couldn't help them manage.

So the next big revolution, after Halley's Comet had passed by, was the creation of the multi-divisional organization form. This is the model that you studied, that has built companies, and that we've grown up with. And I think it's important to understand what's built into that, because unless we understand where we're coming from, we can't figure out

where we're going to. What is it that we've put in place? How important is it to our growth? Where does it impede our ability to develop further?

Strategy, Structure, and Systems

In fact, there was a famous business historian who taught here at Harvard Business School for many years, Alfred Chandler. He wrote a book called *Strategy and Structure*, in which he traced the origin of this corporate model that we've all practiced. All of you have been in it. If you've been consultants, you've sold the idea, and spread it around the world. This is the dominant form.

It allowed companies for the first time to diversify their product and their geography, because for the first time we had not only a general manager at the top, but general managers reporting to general managers. So, for example, in DuPont, with the paints, plastics, explosives, and chemicals, they had managers running those divisions, reporting to Pierre DuPont at the top.

Now what that allowed him to do was essentially, through those divisions, through that divisionalized structure, to manage that diversity. And each of those managers managed as if they owned the business. They would send their competing capital budgets to top management to fund, and that's how top management made strategic choices, by allocating capital across those competing business needs.

That business model, that professional business model, very much made in America, spread around the world. But it required a couple of things. That structural form required a much more sophisticated set of systems, the information planning and control systems that became the hallmark of professional American management, very different from the family old-boy network that had developed in Europe.

So the strategy, structure, systems model that hauled capital requests to the top, and allocated and controlled through information and planning and control systems, required the development of corporate staffs. And so you start seeing the beginnings of a very powerful engine that drove this product diversity and geographic diversity over the next seventy-five years.

But by the time Halley's Comet passed by again, in 1976, we see the beginnings of the downsizing and restructuring that was to drive what you've been living through over this past decade or decade and a half. That's been the beginning. Those are symptoms of an organization and fundamental change.

What was the problem? Well, the strategy, structure, systems model was incredibly powerful. But some of those structures and the systems had become pathological. We no longer just had divisions. We now had strategic business units, and departments, and divisions, and sectors, and groups, and so we had organizations with ten or twelve layers.

With the coming of information technology, we put supercharges on the information and planning and control systems. And so huge amounts of data were being moved up and down, and managers at the top were managing through abstractions and agglomerations, far removed from the reality of what was happening down below. And that's the pathology that started slowing companies down and making them bureaucratic, and it became the great barrier to this next stage.

What caused the change? Well, lots of stuff caused the change, and drove the need to change. But there was one thing at the center of this. At the center of the old strategy, structure, systems model, the divisionalized organization model, was an assumption, in fact a correct assumption, that capital was a scarce, constraining, and therefore strategic resource and that management, by controlling and allocating that scarce capital resource, made strategy. Top management set the strategy. The middle management, with the administrative control, managed these complex systems of capital budgeting, strategic planning, and operating control. And the front-line managers were the operational implementers who lived within the systems and implemented the strategy.

That model ran out of steam when one important central issue became increasingly clear. For most companies today, capital, as important as it remains, is no longer the critical, scarce, constraining, and therefore strategic resource. There are companies around the world who are sitting on piles of cash. There's more capital than they can find internal ideas to fund, which is what has driven a lot of the mergers and acquisitions activities. Because if we can't grow internally, we start growing externally.

In fact, during the decade of the '90s, there was more capital taken out, the capital of the New York Stock Exchange, than issued as IPOs, in buy-backs, management buyouts, in stock buy-backs. But companies are not constrained, by and large. I mean, obviously, there are exceptions. But, by and large, the scarce and therefore strategic resource is the information, knowledge, and expertise that's going to be critical in an information-based, knowledge-intensive service economy.

And unlike capital, which you can haul to the top of the company, and allocate, and make choices about across the business, the information, knowledge, and expertise in an organization resides deep within the organization. It's the managers who are closest to the customer, closest to the competitor, closest to the technology, closest to the regulators, who see what the needs are.

And unlike capital, which we can haul to the top, measure, and allocate through nifty systems that allow us to do everything like calculate return on net assets, return on capital, earnings per share, profitability, all those numbers that yield to very tight control because we can calculate them, unfortunately with knowledge, we have not yet developed the way in which we can manage it.

And unlike capital, which we can haul to the top, allocate, and control, information can't be hauled to the top. We often tried. In fact, that was part of the problem. We tried to haul it to the top so that top management could keep their expertise. They could continue to be the strategic gurus who had control of the scarce resource. But they can't.

When we tried to compartmentalize organizations into the divisions of the departments so we could hold them accountable for their use of capital, the organization model became pathological. And what we're trying to do now is to spread knowledge across the organization, to spread best practice, to take an idea from over here, link it to an expertise over here, apply it to a resource over here, develop a product, and diffuse it rapidly through the company.

As organizations start competing on their ability to develop and diffuse ideas and innovations rapidly, this compartmentalized hierarchical bureaucracy became a huge impediment to growth. And so we started stripping out layers in the organization to get management closer to those who owned the scarce resource, destaffing to get these people

out who were holding tight control over our strategic resource of capital, and empowering the front lines to try and give power to the people who owned the strategic resource, which was the knowledge. That's what's behind all of this transformation, this downsizing and restructuring of organizations.

So we've gone through more than just an adjustment in the organization. We're going through a radical transformation once every seventy-five years: a Halley's Comet life-cycle transformation of the corporation to a very different model, a model that can be managed by the ability to develop and diffuse innovation and knowledge.

Philosophical Shift

So I'd like to suggest that, before we can look at how this might impact the way in which we manage, at the core of this is a philosophical shift. The strategy, structure, and systems doctrine is so deeply embedded that it doesn't go away. It's necessary, but no longer sufficient for a company. I'm not suggesting that we abandon it. But I do suggest that companies have got to move away from it.

What we've talked about is moving beyond strategy, structure, and systems to purpose, process, and people. Now, that's a little bit cute because it's alliterative. But behind the alliteration is, I think, a sense of how different it is.

And this is not from/to. Purpose, process, and people sounds a little new age. I'm not suggesting that we move to management from the lotus position where we sort of abandon all of the structure and systems and sit cross-legged, and hum, and hope that the organization will head in the right direction—I'm suggesting that the strategy, structure, and systems need to be in place.

Beyond Strategy to Purpose

But strategy talks about a company as an economic entity. We think about our product market positioning. How do we gain a competitive advantage? How do we translate that into earnings per share, return for the investors? And that's fine and important. But companies are not just economic entities. They're also social institutions.

Our ability to attract, motivate, retain, and energize good people is going to be the key to future success. And if you are doing more than just articulating a product market position, an earnings per share objective, if you've got something more than a strategy, if you've got a sense of purpose, then people don't just come to work for your company, they belong to the organization, and they commit to the organization.

Companies must understand that moving beyond strategy to purpose is fundamental to their ability to make this transition.

Beyond Structure to Process

Similarly, beyond structure to process. Structure is fine. Typically, organization structure means we've got a product-division driven structure. It's uni-dimensional and it's static.

In a world that's multi-dimensional and dynamic, we've already recognized that our strategic imperatives need to be multiple and much more flexible. And yet we're stuck with

these organizations that are uni-dimensional and static. We've got to build organizations that are equally dynamic, equally flexible.

Beyond structure to process talks about an organization not built just on roles and responsibilities and a hierarchy of roles and responsibilities, but also on a portfolio of processes that are much more flexible and dynamic. Managers understand that they've got not just a defined task that's static, but multiple roles. They may have their line role. But they also serve on a team, or a task force, or a committee. And that shifts and changes. They spend a lot of time taking responsibility for things over which they don't have total control.

As we start building processes that provide the bridges across organizational layers that allow you to link across those solid stovepipes, we've got to make sure that the processes, both the entrepreneurial process and the learning process, are much more at the foreground, and the structure recedes to the background.

Beyond Systems to People

And finally, beyond systems to people. The systems that we have driven into our organizations are systems that are denominated in financial terms. And so we measure people by their performance against profit objectives, performance against earnings targets, return on assets, whatever it might be. But we need to move beyond the systems to people. Recognizing that it is not just about companies measuring and controlling their financial assets, but about understanding and developing people. The human resource is a source of competitive advantage.

You know, as companies went through all this transformational change, and a lot of them were trying to figure out what to do through these multiple initiatives that were being thrown on them, there were a few aberrations in the corporate world that gave them hope that there was a different way. These aberrations had moved off stream from the strategy, structure, systems model that had started with DuPont, and Sears, and Standard Oil, and General Motors, the four companies that really created this first divisionalized structure. Alfred Chandler traced the beginning to those four companies. And the followers were immediate and rapid.

Tale of Two Companies

I want to compare the tale of two companies. This is back in the 1930s, and this is the aberration that I think gives us a sense of where things might be different.

3M had a major competitor, Norton, actually right from this area. Norton was the dominant company in the abrasives business, and they made sandpaper and emery wheels, and those kinds of things. And 3M was just a little pretender. They called themselves Minnesota Mining and Manufacturing Company. It was an enormous exaggeration. They had a carborundum mine. What they did is they mined rock and then they sold it to North and to others who ground it up.

Henry Duckworth was the CEO of Norton. I love Henry Duckworth's name. It's very Dickensian. Henry Duckworth was an accountant. Now if you're Dickens, what name would you give to an accountant? Henry Duckworth. He sits on a high stool. He's got his green eyeshade. He manages this organization as any great accountant would.

And he was one of the first people to follow the example of the Sears, and the General Motors, and the DuPonts of the world, and create a divisionalized organization structure. And that was pretty forward thinking at the time. He had only two divisions—he had the coded abrasives division, which was sandpaper, and the bonded abrasives division, which was his emery wheels. Then he created this great business analysis department, the precursor for strategic planning. Eighty reports started coming up to top management so they could make the good choices. There were tight controls. He cut costs. And this heritage continued through into the post-war era and beyond.

This company remained one of the most by-the-numbers companies. They were BCG's second client. They were one of the PIMS founders, the Profit Impact of Market Share, where you did regressions over eighty factors to see what provided you with more market share. Very by the numbers.

And so there's Henry with Norton. And away it goes. Meanwhile, at 3M, there was a very different environment that was started. William McKnight was the guy who took them from mining rock to saying, "Let's get into abrasives." And William McKnight had the audacity, at the stage when they were just making sandpaper, to hire an R&D executive. You can go to 3M today, and they will show you a little cubby where this guy, Francis Okie, used to work. And it's no more than this big. It's like a bench.

Not only did he hire an R&D guy, but he hired a guy who was a little on the edge, just a little not quite the center of gravity, but very creative, very innovative. People around the company used to call him "Crazy Frank." And Crazy Frank went into his little lab. And his first invention was a homerun. It was waterproof sandpaper. And that seemed like a crazy thing to a lot of people. But then it got out into the plants—the big users were the auto manufacturers, where dust was a big problem because they were sanding down all the cars by hand at that stage. This helped deal with that problem.

His second innovation was face sandpaper. Crazy Frank thought that instead of shaving, he could create a fine-grain sandpaper. For the rest of his life, Crazy Frank actually sanded his face. I have looked through the archives to get a photo of his complexion.

But McKnight was smart enough to tell him to forget that. He said, "Great, Frank. You keep on working on that." And meanwhile, Frank was going out into the auto plants. And, as he was talking out in the auto plants, they said, "Frank, we've got a problem here." He said, "How's the sandpaper?" "Sandpaper is doing great." "But our big problem is—" Now remember that at General Motors they were differentiating from Ford, when Henry was making any color you want as long as it was black. General Motors started painting, and not only painting, but they started then, by the late '20s, using two-tone paint. And the problem was that when they spray-painted the top of the car, the paint was bleeding down into the bottom. They said, "Crazy Frank, what do we do? How are we going to fix the problem?"

Well Crazy Frank goes back to his little laboratory. I'm not sure these are the terms he used. But he said, "Let me evaluate our core competencies. Now what do we do here is we take paper, and then we put glue on it, and then we stick sand on it. Hmm. Paper, glue and—maybe if we lift off the sand, I could invent masking tape," which he did.

And so they went back, and they created masking tape. You can see where the story is going, right? And then along comes DuPont. And DuPont invents cellophane. Crazy Frank says, "Maybe I could use our coating technology to put adhesive on cellophane. And I'd probably call that Scotch Tape."

And from there it went to electrical tape and into that industry, and to resistors and capacitors, until this company, from this unpromising start in a commodity, grew to a company with 60,000 products and a hundred core technologies, and a reputation as the most innovative company in the industrial world for over fifty years.

And so people said, "Now, what was McKnight doing that was so different?" Meanwhile, Henry Duckworth was peddling like crazy and it was driving him nuts that these guys kept closing in on him. And not only that, then they passed him up. And they passed him up with innovation. He said, "You can't do that." He had lots of capital, excessive capital. So as soon as Crazy Frank came up with the Scotch Tape, these guys went out and bought the German company, Behr Manning. Those of you who are from Europe may know Behr Tape—their model was a little bear. And it went nowhere. He couldn't innovate internally; he had to rely on external acquisition.

Now what's going on in these two companies? Well, it's pretty clear that they've got very different business models, very different organizational models—in 3M, there's a culture that's based on a belief in people, not a subjugation of the individual. They talk about stimulating ordinary people to achieve extraordinary performances. It's an organization that, unlike the divisional structure, which literally divided the company from the top down, was built from the bottom up. That are now 3900 profits centers. People have bootlegged time. They believe in the individuals. And they believe that 15 percent of your time you can do what you really think is in the interest of this company, so people come up with ideas.

The profit centers fund them on a trust basis. But you've got to hit the performance. It's what they call "make a little, sell a little." As long as you keep hitting your targets, you'll get funding. And the projects that work become projects. And then, if they're successful, they become profit centers of their own.

The profit centers that are successful become departments. The departments that are successful become divisions, and spawn their own. And so it continues to grow and multiply from the bottom up, not a divisional structure from the top down. And this process is built on, on the one hand, "Make a little, sell a little," a belief in the bottom-up flowing of information; and then, secondly, on, "A product belongs to the division. But the knowledge belongs to the company." And so, they create these channels of communication, these forums of engagement that get the information and the knowledge moving across the company.

The Changing Basis of Competitiveness

Since we did such a great job on the history of the modern corporation, I'm going to take you on a history of strategy. Strategy has been around for a long time, but has become an art form really beginning in the 1980s. The work of Michael Porter here is incredibly powerful, important, and useful. But I'm going to suggest that we're moving beyond that. So, the beyond thing again. That's the base.

This is what we were teaching in the 1980s. Essentially, the source of competitiveness was that we build defensible product market positions. We did the five-forces analysis. We looked at suppliers, and buyers, and new entrants, and substitutes, and competitive power. And we looked at how we build defensible product market positions through low cost, to a differentiator, to niche products.

And this is about value appropriation. It's about an arm-wrestling game. Who has power over the suppliers, the buyers, the competitors? It's about value appropriation, which comes from the mentality of capital being the scarce resource. And capital is a zero-sum game. You allocate it here or there. There are winners and losers. It's powerful. It's important. Every company should do it. But what I'd suggest is that it's no longer sufficient.

During the 1990s, we started having a different discussion about strategy. This was the influence of the work of people like C.K. Prahalad and Gary Hamill, when they started talking about the core competencies of an organization. And we started shifting from defensible product market positions because we found that they weren't defensible, that companies were imitating them, to thinking about sustainable competitive advantage, built not through external product market positioning, but through the development and leverage of internal competencies, of organizational capability.

We started talking about how we build competitiveness into the organization. It's much harder for a competitor to imitate. So this moved to value creation rather than value appropriation. How do we create value with organizational capability rather than financial capital? This was competition not for markets, but competition for competencies.

I'm going to suggest that as we move into this next decade, there's a different model that is emerging, again on top of these. That this organizational capability only works if we are able to attract, motivate, and continuously develop scarce human resources. It's not about just driving up the learning curve, it's about jumping learning curves. It's about organizations continuously willing to self obsolete. And it's not just about value creation. There's a whole issue around value distribution that we've got to start talking about, beyond the Chainsaw Al Dunlap version of what happens to value. Or, for that matter, the Enron view or the Tyco view.

But what has happened, in this one-time transformation of companies, is that as we've taken out layers of structure, as we've transferred to managing intellectual capital rather than financial capital, we've been able to strip out a lot of investment and we've been able to strip a lot of hierarchy. That has freed up resources.

If you're Chainsaw Al Dunlap, you go into a company, you strip out layers, you grab the ending resource, and you distribute it between you, as management, in bonuses and stock, and then as a residual to the stockholders. And, in that cost-benefit analysis, the cost is paid by the people who are stripped out and let go by the organization. And the benefit accrues to top management and the shareholders.

And the same thing with Tyco and Enron. That was about creating value and distributing it in a very selfish fashion. It's destructive to organizations and it will not build the kind of organization we're talking about. So this is about how you create and where you distribute the value that you create, beyond the pathologies we've talked about. Now we've already done that.

An Evolving View of HR

Here's my conclusion about where we are at the moment. Our ability to think about strategy has way outrun our ability to build organizations to manage it. And the problem is that we've got these third-generation strategies that we're trying to implement in second-generation organizations with first-generation managers. But it's managerial competence

and capability that is constraining our ability to create the kinds of organizations that we need to implement these much more sophisticated strategies that we've started to develop.

So let's do another history. This is a history class. Let's look at the evolution of the way in which we've thought about human capital as being interesting. When you were here, there probably was still some residual of this, where labor really was a line among the costs. It was a factor of production. It was a controllable variable cost.

Henry Ford made the famous statement, "When all I want is a good pair of hands, unfortunately, a person comes attached." His objective of motor systems was to make people as predictable and controllable as the capital assets for which they are responsible. People, even in managerial levels, were predictable and controllable under this tight structure system. They were on the line. They were extensions of the machine. Even when many of you were here, we had Harold Geneen, the legendary head of ITT, running the company through this same mentality of controlling tightly the financial resources.

We moved beyond that. That lasted for fifty years, from the '20s through to the '60s. Then, really, by the time we got to the '70s, '80s, and '90s, we started talking about employees as assets. And across all of the annual reports, we saw the heading, "People are our most important assets." Some companies even managed as if they were, and a lot didn't—it was just simply hollow rhetoric. There was still a sense of ownership. There was still a sense that people were bolted to the factory floor, like the machines. They were simply a different form of assets.

I think we're moving to a view with a different philosophy, with a different mindset in which we've got to regard people as volunteer investor, people who are going to come to the company and bring with them the scarce resource, which is their knowledge, expertise, commitment, and engagement. Just as you are trying to attract the scarce resource of capital, and treat with respect the shareholders who bring and invest that capital resource, I suggest that that same kind of a contract now extends to the way in which you regard your human resource. These are volunteer investors who have a scarce resource that they are bringing to you and voluntarily investing in your company. And the relationship needs to be one of the same kind of respect that you have for shareholders, to treat them as strategic partners who are investing their human capital.

Building Human Capital

I'm going to say that there are three important things that you can do to build the human capital, the intellectual capital. The first is that this really depends on the quality of the people that you recruit, and the way in which you develop them in your organization. Raw material is the human capital. And, let's talk about some of the building mechanisms, about how companies think about building that human capital.

The second is that those people can all work in isolation. But when they work together, are able to leverage their knowledge, and are able to transfer their knowledge and combine their knowledge, this linking mechanism is what creates social capital in an organization.

And third, I'm going to suggest that there's something else. And this is not the current popular term. But emotional capital is what engages and commits people to an organization, what really energizes them. A lot of companies spend a huge amount of time saying, "How do we squeeze the last half percent return out of our capital assets?" when their human assets are giving about 20 percent of what they are capable of, or 15 percent, or whatever.

How do we engage people to come to work with a sense of real excitement and commitment that really puts forward and has them bonded to the organization, loyal to the organization, committed to the organization. And that may be an old-fashioned notion. But I'm going to contend that it's good management. And it's as valid today as it ever was.

The Building Challenge

Let me say a few words about each of these. The building challenge. Because of our strategy, structure, systems model of management, we've got these very sophisticated capital budgeting systems, almost every company has, where any capital decision up to \$500,000 goes to the division president. And anything up to a million goes to the CEO. And above a million dollars goes to the board. Substitute your own numbers.

And yet, I will contend to you that everyday, in every company, the people on the front lines—your plant managers, your sales managers, your territory managers—are making \$1 to \$3 million dollar strategic decisions without oversight. And those are the commitments they're making every time they make a hiring decision.

If the shift supervisor resigns in the plant, it means that the production director covers the shift. And so he advertises in the *Des Moines Register* and he gets three applicants. Two of them are absolutely no hope, and one looks okay, so he decides to hire that person. And all they are is sort of an average person. You've not gained competitive advantage. You've matched the market. The hiring decision, unless it's raising the bar, unless it's raising the average performance, the average capability of your organization, is not a strategic hire. You're simply not gaining competitive advantage through that hire.

And yet we do it all the time. It's incremental, no oversight, and often done in a way that not only doesn't gain, but loses competitive advantage. So there's some very important things that the companies can and should be doing. Instead of thinking about recruiting as just a recruiting task that's delegated to people in HR, go out to Harvard Business School or where ever. It's a strategic task. Let me tell you what Microsoft does.

We used to hear a lot about the war for talent. Now we're in sort of a recessionary environment. That hasn't gone away. It won't go away. It will continue and the companies that are using the recession either to buy capital assets that are underpriced or human assets that are underpriced are going to emerge from this in so much stronger form.

When Microsoft recruits, they do a great job in college recruiting. They have a screen on all of the computer science graduates in the United States, every one of them. And they triage through the kind of college and level. Very quickly, they decide who they'll even look at. There's 25,000 at the top. And they'll go through that group and target a subset of those for interviews. Of those interviews, they'll target a subset to come back to headquarters to interview. And then, a subset of that will get offers. And they've got a very high accept rate for their offers.

What they do is essentially take the top 2 percent. That's very impressive, but it's nothing more than best practice in college recruiting. That accounts for about 20 percent of their recruits. The other 80 percent comes from a full-time task force of 300 people who are industry recruiters.

And everyday, right now, in your companies, in your IT department, if you've got a great software person in your organization, they probably know someone from Microsoft. Those

300 people are looking at large companies. They're in academic environments. They're at Princeton University. They're at the Starbucks. They're competitors. In Silicon Valley, they're all over. They go to the industry fairs. And they're building relationships.

And so I come to Richard and say, "How are things going?" Richard is working at Apple. And he says, "Things are going just great." "Terrific. What are you working on?" "I'm doing a project on artificial intelligence." "Oh, that's great. We are doing some terrific work in that." He says, "You're a nice guy, but Microsoft is the evil empire and I wouldn't work there if it's the last company."

A couple of years later, when I talk to him, Steve Jobs has just stiffed him for a raise or he's in the penalty box. And he's crying on my shoulder over a glass of wine, or a beer, or something. I say, "Come on up. I'll introduce you to our group up there." And pretty soon, he's interested and he's engaged.

This is how they get 80 percent of their recruits. It's strategic. They believe it's a battle for the best and the brightest. And they're willing to pay any price to do that. So I think with management training, it's not about management. And some companies outsource that and believe that's appropriate. We've got great executive development programs. I think they're terrific, but they are not the answer to developing the talent in your organizations.

That's done through the embedded process that GE has done such a fabulous job in. Crotonville, their huge facility, is run by managers. They kicked out the Harvard faculty and others years ago. It's Welch and his top team that are doing that. And more importantly, in Session C, which is his annual review of the top managers in every part of the organization, he's driving hard on his executives. What are you doing to develop this person? What is their next move? What's the responsibility you're giving? How are you giving them international experience? Where is their bottom-line accountability? It's built into the culture.

And finally, in a routine evaluation, the feedback is, "Yes, you've done above average. We've given you a 4.2 on the scale. And we think you did a fine job in this. And you might want to work a little harder on your people skills. But we'll talk again next July, and see how you're doing."

That's nonsense. Evaluation has got to be part of an ongoing coaching process. Just take a benchmark against a McKenzie or one of these companies where intellectual capital is the way they're competing. Those guys are reviewed twice formally on every project, with an average of four projects a year, by their engagement manager. They're reviewed twice by their development director, a director of the company who is appointed to be their mentor. They're reviewed once by the office head. Across a year, there may be a dozen different points in which people are giving them coaching, support, and development. It's a way to think about this strategically.

The Linking Task

You know, often when we think about how we manage our knowledge base, what's happened in a lot of companies is that we started off with a data processing manager. And then he became an information technology director. And then was promoted to become the chief information officer. And nowadays, the trendy title is chief knowledge officer.

The assumption is that managing knowledge is about, somehow or other, putting a supercharge around our information systems. So we build databases. We build expert systems. We build repositories for the company's knowledge. We build all of this stuff that's collecting all of the company's data and say, "There's our knowledge management system." Companies are drowned in data. And they're starving for knowledge.

That building and leveraging knowledge is a human process, and the best that we can do with technologies is to provide an infrastructure that supports it. So again, this is something that a line manager has to take responsibility for in creating the channels of communication, the forums of exchange that I talked about at 3M, for example.

What is the reason that GE became the most valuable company in the world, while its miniature replica, Westinghouse, went out of business? Two companies with identical product market portfolios, or as close as you can get. One goes out of business, and the other creates more shareholder wealth than any other company in the world. How can that be? Everyone says a tree doesn't grow to the sky. How on earth can you have \$130 billion company in businesses as diverse as aircraft engines, light bulbs, medical systems, and financials? It doesn't make any sense. How is Welch creating value?

Twenty years were spent building organization capability. First, igniting the entrepreneurial engines. And second, being able to capture and leverage that across the organization. That's putting programs on best practice in place. And they're deeply embedded in the organization, recognizing that, even across those diverse businesses, they can develop and diffuse best practice.

At the heart of this is a trust-based culture. If you're going to ask people to work together, if you're going to ask them to release the trapeze that they're on, and grab another set of hands at the other side, you'd better make sure that there's a safety net underneath.

At 3M they talk about and celebrate well-intentioned failure. People will talk about it. And they'll celebrate it. And they'll tell stories about the failure. You all know the story about how Post-It Notes was created. It was a failed experiment by a technologist looking for a super adhesive glue. And it was a total failure. It was a super weak glue. But, because they had these channels of communication, someone decided, "Ah, there's an application for this super weak glue."

Bonding

So let's look, finally, at the last piece. And here's where I think one of the insidious sets of beliefs has pervaded in companies. We have moved to an acceptance of "the death of corporate loyalty." We have moved toward the belief that there's a free market for labor. And we talk about a free-agent market. Much of the sports teams do. The best thing you want to do is to set this up as a market-based transaction.

You want to outsource what you can. You want to hire temporary help. You want to use people. The fact that you've got people staying for shorter periods of time is an advantage because it allows you to adjust to the cycles. It's nonsense.

The place where it's most pervasive is on Wall Street where, essentially, it's a bidding war for talent. And so the super analysts, the star analysts, bid these prices. Now, if I'm going to go down to Wall Street, and if Brian is the star analyst, and I say, "Brian, how are you doing? How's the income?" "Well, you know, it's okay. Five million a year. I mean I'm

getting by." "Brian, I'll tell you what. Why don't you come and join our wonderful iBank. And we'll give you six million." Bang, sold. There he goes.

It happens all the time on Wall Street. If you live by the market, you'll die by the market. We've established now that Brian will go to the highest bidder. And so when someone else sees that he's doing fabulously well, they can leverage that. Then he's going to leave.

This is the whole notion of the free-agent market, where you get people who are engaged only for the money. That's the contract that becomes the critical one. I believe that is the death of corporate loyalty. Any manager who believes that is advocating his or her responsibility to the central task of management.

The Changing Employee Contract

This is about connecting the individual's activity to a company vision, a personal belief system. I'm reminded of seeing my old friend, Elliott Hillback. Elliot works for a company called Genzyme, right next to the Harvard Business School, that big plant that you see. That big beautiful brick building is a plant. It's where they make a drug called Cerezyme.

Cerezyme is a drug for a very rare disease called Gaucher Disease. Worldwide, there are probably only 10,000 patients. That plant works 365 days a year, twenty-four hours a day and it produces as much drug as you can put in a little six-pack cooler, about six kilos of drug. That's enough to treat the world's population. And so, not surprisingly, there's a huge investment for a small population. It's an orphan drug. It reverses this dreadful debilitating disease that kills young children, so it gets orphan drug protection.

Here in the United States, it's reimbursed. But the treatment for a year might cost \$10,000 or even \$20,000. In Western Europe, it's reimbursed. In the developed countries of the world, it's reimbursed. But the commitment of the company is that that's not their objective. Their objective is to treat anyone who suffers from this disease anywhere in the world.

So they have gone into a partnership with an organization called Project Hope, and they are actively seeking out people in Africa, or China, or wherever. And to the CEO, Henri Termeer, and the senior executives, like Eliot, this pervades the company. That is absolutely their commitment.

And people in the organization are proud to belong to that. That's a lot stickier kind of a commitment to an organization: a belief and engagement in an organization that's not just working for a company, it's belonging to an institution.

There have been so many studies done on what gets people to stay at companies. And everyone says pay them more. Pay, almost inevitably, comes out number three. The number one reason why people stay at companies is personal development, their own personal growth. As long as you are giving people personal growth and challenge, they'll stay.

The second most powerful is affiliation, that they like the people that they work with, sort of the social capital part, if you like. And then comes compensation. Now if we're ignoring the first two, not managing the first two, and just using the big stick of pay, we're under-managing, converting this economic workplace into a social institution.

So we start managing people like we would any other resource. Motorola manages their people asset the same way that they manage their financial asset. They manage it under Six Sigma Standards. Every manager in the company has a quarterly review. Every manager in the company gives his staff a quarterly review, and asks these questions.

Do you have a meaningful job that contributes to the success of Motorola? They're required to record the answer, and both sign it. Second question. Do you have the knowledge and specific on-the-job skills to be successful? Has the training to upgrade your skills been identified and made available to you? Every quarter, we're going to ask them that question.

Do you have a personal career plan that's exciting and achievable, and being acted on? Do you receive candid, positive or negative feedback, helpful in achieving your career plan at least every thirty days? Is there an appropriate sensitivity to your personal circumstances, gender, cultural heritage so that such issues don't detract from your success? A negative on any of those things is regarded as a quality failure. And they are held accountable to Six Sigma Standards.

In the end, there's a shift in the contract that organizations have between themselves and the people who work there. This has been talked about a lot. But let me just put in the framework of what we've talked about today. The traditional contract was that you give me your loyalty for employment. And remember, we're the gurus. We know. We'll set strategy. We will ensure that the company remains competitive. And as long as you give us your loyalty, and obedience, and commitment, and implement that strategy, we'll give you employment security.

Sometimes we talk about lifetime. In other words, essentially employment in return for loyalty and obedience. And several managers have talked about this explicitly and have changed the contract quite explicitly. It says that's an arrogance. We can't ensure this company's competitiveness. You are responsible. Everyone is responsible.

Andy Grove says that unless every one of our engineers, or designers, or sales people, or production people is better than their opposite number at Motorola, or Hitachi, or whatever, we can't compete. You are responsible for being the best that you can be in your company.

Our role is to provide you with the support, the resources, and the development to make you the best you can be, to develop you to the maximum you can be. And whether or not we succeed, it's an immoral contract to guarantee you employment in a world that's changing. We can't guarantee it over forty years. But we will guarantee employability, that you will be the best you can be. From employment to employability is the way that it is being reframed. If there is just one slide that you keep from today, or one thing you write down, this is it.

We talk about transformation of companies and renewal of companies. But you can't start with that. It's not about all the restructuring, and downsizing, and delayering, and empowerment, and whatever. You can't begin to renew a company unless you revitalize its people.