

# Lecture Text

## Professor Bharat N. Anand

### Crafting Business Strategy with Environmental Scanning

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*(edited for clarity)*

#### **Central Tasks of a Strategist**

What I'd like to do is discuss a general framework for environmental scanning, and the reason I'm saying environment and not industry is that environment is something that is much broader than simply the industry you compete in. Here's the problem that this framework is designed to help address.

To craft any kind of strategy typically requires sizing up the external environment. And you might think of that task as one of the three central tasks of any strategist. In other words, the first is, let's take stock of the features of the environment that we compete in. The second one is, given the environment we compete in, how might we effectively position ourselves to extract a competitive advantage? And the third task is, if we do have a competitive advantage, how might we sustain that over long periods of time so that we're not simply a company that makes a lot of money for one or two years, and to what extent might we be able to replicate the success over years if not decades?

What I'd like to do is focus on the first task, which is sizing up the external environment. And here are some reasons why I think this is quite useful. And we'll actually discuss several examples as we go through the course of the discussion.

The first is, of course, when you're entering a new market. In those cases, it's fairly difficult to try and get a good handle around what competition is going to look like. So in that sense, to answer some of the questions, the framework that we build up to in this session might be useful. The second, as I said, is trying to position your company to succeed in the environment in which it currently is, and related to that, to assess the effect of major changes.

If I own a music studio and I see that people are actually using MP3 players and burning CDs, and so on, that's a major change. How do I think about the impact of that, not just on my business, but on related businesses within the music industry? They might be not just technological changes, but also regulatory changes. They might be trends, which are slow-moving but at the same time fairly important, such as the opening up of markets and globalization. That's the third major task that hopefully we can use to set the framework we're trying to address. The fourth is trying to formulate strategies which in turn shape the environment in which we compete. So we're not simply taking the environment in which we compete as a given. To what extent might we be able to shape this environment? And last, if all else fails, when do you decide when to exit? So these are the tasks.

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## **Industry Profitability**

What I wanted to do is start with some very raw data. This graph is obtained by looking at all industries in the United States over an eleven-year period, and looking at return on equity. And in some cases, we might want to look at different metrics. When you actually look at this data over longer periods of time and extend it to more recent years, the distribution looks roughly the same. The particular industries that we find at the very top, in fact, also look the same.

And that's the next graph, which shows that the pharmaceutical industry systematically tends to return to the major pharma companies returns which are five, ten times as high as the returns in many other industries, like airlines or autos. The airline business has not been a great business for twenty years. Computer system design, engineering services are at the bottom. If you were to look at these patterns, these are systematic differences in profitability for the average company competing in each of these industries, right? They're average profitability differences. It's not explaining the profitability of every company because, as we know, some companies actually do fairly well when they compete, even in these industries. But if you look at average profitability differences, they're systematic and they're pronounced. But what's interesting is there's no single magic bullet explanation for why you have these differences across the industries in the manner that we see on this graph.

And that's exactly the point of coming up with a framework that is rich enough to capture some of the reality here, but at the same time allows us to separate signal from noise. The environment in which most of you compete is quite complex. One needs a structured way of thinking about this environment to capture the richness, but which is not overly complex itself.

## **Introducing the Framework**

Which leads us into the five forces. And what's interesting is the five forces was written as part of the book on competitive strategy and competitive advantage more than twenty years ago, by Mike Porter. And the ideas have disseminated, clearly. One of the things that I'd also like to try and make sure we cover today is that there has been quite a bit of thinking since the five forces analysis was first written. And so what I'd like to do is not just introduce this framework to those who are not familiar with it, but to be able to actually dig deeper into some of the lessons that we've learned about how you might apply this framework and where not to apply it. That's what I'd like to cover in the rest of the time that we have.

Because, as you see, in a sense, the five forces are just one part of this framework. But it might be useful to think of this in a broader fashion, as an augmented framework. The two parts that I'd like to cover are, first, what exactly are these forces? What is the Value Net, which is something that has recently been written by Adam Brandenburger, who used to be here, and Barry Nalebuff, who's at Yale? It gives us a little more insight into how to map out these competitive forces. And last, think about how contextual factors might affect the analysis of industry structure itself.

What this framework is designed to do is help you dissect the roots of profitability, right? If we have profitability data, there's no reason why we might want a framework to predict profitability. But it's actually designed to get at the roots of what actually drives these differences. Many people use it simply as a checklist, just as a valuable and comprehensive checklist to make sure they haven't ignored any particular factor. An important part of the five forces framework is to identify key threats that you might face in your own environment. And, as we'll discuss at the end, you might actually turn this framework on its head and ask the question, "How might we overcome these threats or exploit key opportunities?" So those are the five forces. These are real forces. These are forces that tend to drive profits down in your industry. Let's actually go through each of these in turn.

### **Five Forces: Rivalry**

What makes rivalry intense? Rivalry is typically intense when it's very difficult to differentiate yourself on some attribute other than price. It's very difficult to build up a brand. It's very difficult to differentiate ourselves on the basis of service, or location, or the target customer segment. To the extent that you might be able to do that, there are opportunities to mitigate rivalry.

But the first question is, can we even differentiate ourselves in anything other than price? The second is, even when it's difficult to differentiate ourselves on factors other than price, there still might be opportunities to maintain price discipline. Now, I want to be careful here. We can't go too far in this direction, for obvious antitrust reasons. But at the same time, there might be opportunities for competitors to behave smart. Let's not compete on price on exactly the same commodities and all make exactly the same products and serve the same segments. But we might be able to serve different customers, different geographies, and so on.

To the extent that you have any of these factors here, it's much more difficult to soften rivalry. For instance, if industry growth is slow or negative, you're basically competing for share. In that case, there's a much greater incentive to engage in vicious price wars. To the extent that the industry is fragmented, you don't know who you're competing against, who's undercutting you. It's not like you have one or two major players who can probably get some stability to the market. It's much more difficult to maintain any kind of discipline. You'd like there to be rational competitors rather than irrational ones. What do I mean by that?

#### *Capital One*

Capital One—anyone heard of Capital One? This is a credit card company. Capital One entered the credit card business de novo in 1992, '93, and over the last decade has built up a so-called information-based strategy. It exploits detailed information about its customers to tailor not just products but to tailor service as well.

So when you call a Capital One call center, on the computer screen is information that tells the call center rep the net present value of this customer to the company. And if you call and say, "Well, I have a better rate from Citibank. I'd like to switch," there are some recommendations for the call center rep, which say either meet this person halfway, or match completely, or let her go. All this happens in less than a second. They've basically used information and technology to develop a product

which, on the face of it, is a commodity. It's credit cards. And by using that, they had the highest growth rate and the lowest default rates in the industry.

Then they started looking to expand into other areas where they might leverage this so-called information-based strategy. They thought that wireless telecommunications was actually a great business. Let's actually resell airtime to customers, wireless services. In fact, the phrase they coined was that a phone is simply a credit card with an antenna. What happened? After a few months, they decided to exit that business. They said, "The problem that we didn't realize we were facing was, there were all these irrational competitors who were willing to slash prices, offer pricing at close to marginal cost, who basically were rewarded by the analysts for increases in market share as opposed to increases in profitability— this was a few years back—and that's not a business that we want to be in." The question is, how many of you actually face these types of competitors?

A second aspect is exit barriers, which is to the extent we have behavioral considerations that tend to increase exit barriers. For instance, family ownership is typically a feature or an attribute that tends to increase exit barriers in many businesses, which is we simply don't want to give up this business. Remnants of Rupert Murdoch, although that's a public company. But there are a lot of small businesses: fragmented market, many small players, many family-owned. To what extent might they actually want to exit this business?

So those are three generic features that tend to make rivalry more intense. In the context of the force of rivalry, in the reading you will have identified or come across this laundry list of factors. In a sense, what the previous slide does is just provides you with a very simple logic which underlies this laundry list.

Here's just a sidebar. In thinking about retaliation and the cost of retaliation, there were some factors that we identified which might make it easier to impose some norms and maintain discipline.

#### *Investment banks*

For anyone who's hired an investment bank to underwrite new or repeated equity issues, they've probably encountered this: prices are typically nonnegotiable. At the same time, what's interesting about this industry is, if you talk to anyone in investment banking, they say this is a fierce business where everyone is at each other's throats and they're competing fiercely for market share. They compete on everything but rarely price. Now, how do they do that?

First, the facts. What's interesting is, in new equity issues, or IPOs, the commission is paid to investment banks. So the growth spreads were exactly 7 percent—not 6.9, not 6.98, not 7.02; exactly 7 percent—in over 90 percent of all deals over the last few decades. Underwriting fees on all equity issues in Britain were exactly 1.25 percent of capital raised for decades. The result is that a return on equity for investment banks, at least the bulge-bracket banks, has typically been on the order of 30 percent. Strong ties between investment banks exist through syndicates. Competitive bidding is rare. Negotiated offers are used in more than 95 percent of security floatations. Some people think, by the way, this goes a little too far. Yet, at the same time, we do see fierce competition in other arenas.

As I said, this is one form of soft rivalry. This is not what one might recommend necessarily. But at the same time, the key point is that there might be various dimensions of rivalry that you might soften by not competing on price but by competing on other attributes. Which of the target markets are we serving? Which are the areas we're choosing to serve? And are there any opportunities to differentiate ourselves on things other than price?

### **Five Forces: New Entrants**

All right, entry. Again, typically, entry barriers could be thought of as being relatively easy when one of three factors holds. The first is, entry is simply feasible. In other words, it's not that there are intellectual property rights, which reside with incumbents, which prevent us access to some key input. Economies of scale are fairly modest, so we can enter. And it's also feasible in the sense that there are no regulatory restrictions that prevent entry. That's the first set of factors. Even if entry is feasible, sometimes it may be difficult for entrants to catch up with incumbents simply because there's a huge learning curve; or because they have contracts with their existing buyers; that they've locked up buyers; or that there's some other attribute of the product that buyers care about and they wouldn't like to switch when a new entrant comes in.

Even if those two conditions hold, entry barriers might be fairly high if we know as an entrant that incumbents could fairly easily retaliate. And if we're going to engage in price wars, and we're going to incur all these capital costs to set up shop and then simply lose our shirt, there's no reason why we might want to enter. That is why you see a lot of players sometimes taking steps or making announcements to indicate that they might retaliate fiercely to keep entrants out.

There are basically three factors. One, is it feasible? Two, can we catch up? And three, how big are the costs of retaliation by incumbents?

### **Five Forces: Substitutes**

We talk about entry and competitors, and those are thinking about players who might compete in offering the same product as you're offering. There's a different kind of competition which is sometimes much more insidious, and that's the threat of substitutes. What is a substitute? A substitute is defined in the following way: when a customer values your product less when she has the substitute product than when she only has the option of purchasing your product alone.

Notice what's interesting about this definition. It's not defined in terms of products; it's defined in terms of customers. And I think that's important because it could be that there are players who are selling very different products but who still represent an important threat to us.

We'll talk about some examples in a second. Why are substitutes a big problem? For the same reason as competitors, which is they limit demand, and they restrict the extent to which we might be able to increase prices.

A substitute for Coke and Pepsi is water, or tea, and coffee. Here are some less obvious examples: power tools and neckties. Black & Decker considers its power



tools to be substitutes for neckties that other companies are selling, especially on Father's Day. Very different product but you're competing for the same wallet, same share of wallet.

The second is personal computers and videogame consoles, and this became important, as we know, in recent years, when Sony, competing in videogames, at some point announced that they wanted the console to be the home entertainment center. They're going to use it to get access to the Internet when we start playing videogames through the Net. It then starts having the same functionality as a PC in many ways. We'll start having music, and so on, that we can play on it. The moment that happens, you sit up and take notice as a PC manufacturer. You say, "What we thought was a fairly innocuous product suddenly is a major substitute."

The last is actually Little League baseball and videogames. Little League baseball—for parents in this country—Little League is having a difficult time getting people to play baseball. Not just because of soccer, but because the graphics that we now have on the Electronic Arts videogames are so dramatic that you'd much rather play there, act as if you're Alex Rodriguez, have the game over also in half an hour, and then move on to something else.

*Disruptive technology: Nucor Steel*

Anyone read Clay Christensen, or anything to do with Clay Christensen's disruptive technology concept in recent years? So this is an idea that has received some attention out there in the press. I'll just give you a brief synopsis of what it is. The whole idea of disruptive technologies, in a sense, is really about substitutes. There are products that we don't take seriously today, which might end up hurting us pretty dramatically in the future.

Here is one classic example in steel. We talked about steel versus concrete. In steel, we had the large steel manufacturers, like U.S. Steel, many years ago. In the 1960s, there was a new technology that came into the market, embodied in these so-called minimills—small mills that used different furnace and casting technologies to convert scrap into steel. They used electric arc furnaces, as opposed to open-hearth furnaces, or basic oxygen furnaces. But what was the major issue? The major issue was the following: The quality of the steel produced by these minimills was fairly poor and so was the consistency of the steel. So they entered at the very low end of the market.

U.S. Steel and other major manufacturers looked at them and said, "We're only too happy to give up that part of the business to them because gross margins are on the order of 7 percent if they make reinforcing rods and beams." Customers are willing to switch for a fraction of a dollar. And so they basically gave up that part of the market to these companies.

Well, what happened a decade later, the minimills actually turned around and said, "We're now at a stage where we've improved the quality of our product and we'd like to make something else. In fact, let's start moving up the quality spectrum." So they said, "We'd like to get in the business of making angle irons and other shapes, and all different forms of steel." U.S. Steel looked at this and said, "That's actually the worst part of our business. Gross margins there are at about 12 percent. Customers

are willing to switch for a fraction of a dollar. We're only too happy to give that part of the business up." A decade later, Nucor and other minimills said, "Now we'd like to get into I rods, and H beams, and so on." Same thing happened. Gross margins of the order of 15 percent. U.S. Steel said, "That's actually the worst part of our business. We'll give that up."

Five years later, Nucor is now entering the sheet steel market. That's a substitute product, which, on the face of it, looks like an inferior product but, over time, can creep up on you in ways that eventually are quite damaging. So a question to think about is, what are the substitute products that you face? Are there any products like this that you face today in your environment that might have the potential of playing the role of a minimill, let's say, five or ten years down the line? All right, so that's the threat of substitutes.

### **Five Forces: Buyers and Suppliers**

Of course, we can't simply think about competitors. We've got to think about buyers and suppliers because they might be capturing a large share of the pie.

Two major types of factors that cause buyers to have a lot of power. The first is just intrinsic power, based on the fact that they're small numbers. There are a few big buyers that typically have many choices in terms of where they can actually source. The cost of switching is fairly modest. There's nothing much to differentiate these buyers, again. And they have fairly good information on the products coming from different sources. Worse still is if they get integrated backwards, which is if they can actually enter your business.

The second aspect actually depends on the buyer's strategy as well. How price-sensitive are buyers? Because it might be the case that we actually have a few large buyers but they're not that price-sensitive. It's worse if, in fact, your product accounts for a large fraction of their costs, because that's likely to make them much more price-sensitive. It's worse if their strategy is predicated on low cost, as opposed to high quality, because then they'd be much more price-sensitive.

These are two major factors of the logic that underlie a series of issues that you might think of as attributes contributing to buyer power. The very same principles govern supplier power.

And just some examples. Biotech companies, small companies, when they come up with drugs, or when they're getting funding from big pharma, typically they don't have a lot of power. We have the human capital assets, we have ideas on what drugs to develop, but at the point that we get funding, there's no product, so there's not much power. Once we have a product, we have power, but then we have to go back to these same companies to distribute it. So again, we don't have much power, which is why a lot of biotech companies actually want to forward integrate and become big pharma.

A very tough position to be in is as a supplier to Wal-Mart. There are surely some benefits but it is a tough position. Let's actually think about the attributes we talked about. A few major buyers: the concentration ratio of the top three players in discount retailing is now over 75 percent, and Wal-Mart accounts for a major chunk

of that. Wal-Mart can backward integrate because they can basically issue private label. In fact, because there's a low-cost strategy—they're in the business of "everyday low prices"—they have a huge incentive to lower the cost of their inputs. So they're very price-sensitive, very willing to basically get the knockoff from China, as long as supply-chain criteria are met, which increasingly again is becoming a commodity in this business.

In terms of the fraction of sales going to and from them, Newell Rubbermaid is one of the major suppliers to Wal-Mart. They make things like the Graco products, strollers, and so on, for kids; Sharpie pens, Calphalon cookware, all kinds of products. They're one of the biggest suppliers to Wal-Mart. Wal-Mart accounts for 15 percent of their sales, so Wal-Mart is an important buyer. Newell accounts for 0.4 percent of Wal-Mart's purchases. So that's the asymmetry that we're talking about. It's not that Newell doesn't get some benefits from Wal-Mart. In fact, many suppliers to Wal-Mart say they're a wonderful buyer because they share information technology and a lot of other information about what product is selling.

That's the biggest problem that Newell Rubbermaid faces today. For a long time they competed on service, and the fact that they could supply products much more quickly and probably much more reliably than many of these private label products. Over time, that's become a commodity, as I said. So now what's happening is we're competing on price. How do we differentiate our product, which we know is better than these knockoffs from China? In fact, the direction they moved in is branding. They said, "Let's actually just start branding." That's one way to go. It may not be the only way, but it's a very difficult position to be in.

Suppliers. So as we said, Intel and Microsoft; baseball players and teams; or service industries, generally, where a large chunk of your costs are labor costs; ESPN and cable operators. One of the reasons why Comcast was trying to buy Disney was to actually make sure that the cost of programming by companies and channels like ESPN could be maintained low.

An industry where you have both high buyer power and high supplier power typically has been the steel industry, where, on the one hand, you had strong unions and, again as I said, high labor costs. On the other hand, steel actually accounts for a major chunk of the cost in most of its products, so the buyers better be sensitive to the price.

All right, so that's buyers and suppliers, and that's what we end up with, which is the five forces.

The reason I said this is not an entirely comprehensive framework is that there's one aspect here that we've left out, maybe even two. To see this, all we need to do is recognize the following fact: Most of these forces are framed in terms of threats—threats by players who might exert competing claims on the pie that you're trying to capture. And the fact of the matter is, there are many players today who might be your partners. There's been so much talk of alliances over the last decade. Where do those kinds of players fit into this framework? They might be players who might help you capture a given pie. How do we think about that?

## **Complements**

This is where the so-called Value Net came in, and suggested that there is a perfect symmetry here. Just like we have buyers and suppliers, there are competitors and so-called complementors. It's not a term that I expect you're familiar with, so let me just spend a minute defining what a complement is.

We defined a substitute in terms of whether a customer values your product more or less. That's the principle that applies to complementors in particular. A customer values your product more when she has access to the complementary product than if she were buying your product alone. In other words, it's the exact mirror image of a substitute.

Think in terms of buyers and suppliers. So far we've framed everything in terms of your customers. And indeed, a firm can be your complementor with respect to your buyers if your buyers are willing to pay more for both products than for simply your product alone; even better, if they're willing to pay more for your product when there is access to the complementary product.

Simple example: hot dog and ketchup. Hot dogs are simply much more attractive for most of us as a food to barbecue with if we had ketchup. Think of a world where there was no ketchup. In that sense, Oscar Mayer and Heinz are complementors. They actually help each other.

But we can turn this around with perfect symmetry. A company is your complementor with respect to your suppliers if the suppliers are willing to accept less to serve both of you together than they would be simply supplying the product to you alone.

I've put American and Delta up there. We typically think of them as competitors. How are they complementors? They're complementors when it comes to sharing the fixed costs devoted to building new models of aircraft by Boeing and Airbus. To the extent that you have many players out there competing, and I'm a supplier and I have some fixed costs of overhead that I can share across these players, they actually start helping each other.

A nonobvious example in this particular context is different defense programs. And, in fact, here's a quote by William Anders, who was the former CEO of General Dynamics, who almost articulates exactly what I just described. He said, "The F-22 has been recognized as one of the most successful, best managed, next generation of weapons systems development programs currently under way. However, as demand continues to fall in other defense programs served by the F-22 team, a portion of the fixed and overhead costs formerly supported by these programs automatically shifts over to the F-22. The danger is that this model program could ultimately become unaffordable because of the growing overhead and fixed cost constraints."

It's not something that we're used to thinking about in these terms—takes a little effort—but focusing on complementors can be really critical, as I'll just illustrate. Before I get to that, let's return to Wal-Mart. Wal-Mart is a competitor of Target, and Kmart, and all these other players. But when it comes to negotiating with suppliers,

one of the things that Wal-Mart does with its suppliers is it says, "We'd like you to serve all our competitors. We don't want to be the exclusive buyer. We want you to serve everyone." Why? Same reason: To the extent there's fixed costs, we can actually share them across different players. And because Wal-Mart is in such a strong position, by having suppliers sell to many different competitors, they say, "You'll basically, effectively, at the end of the day, sell to them at average cost and you will sell to us at marginal cost." That's basically what happens. So, in that sense, Target, and Kmart, and all these other players are actually complementors to Wal-Mart. It benefits Wal-Mart to have them around.

#### *Lincoln Highway*

Anyone heard of the Lincoln Highway Association? This was at the turn of the last century, when highways still weren't built, especially transcontinental highways. The Association was comprised of these players and some others: General Motors, Hudson, Packard, Goodyear Tires, Prest-O-Lite headlights, who basically would compete when it came to capturing money from a given car. But of course you then recognize that paved roads are a big complementor to the sale of cars. These companies got together, formed this association, and set up and built seedling roads—which are basically small roads all across the country—so that buyers, customers, people who bought cars, could get a sense of the value of having a transcontinental highway. The moment these seedling roads were built, customer groups then lobbied the federal government to fill in the gaps, which happened a few years later. So, in that sense, these players were actually complementors. I'll come back to this question in a second. But let me just suggest why this is so important.

#### *Music industry*

Think of the music industry again. The debate over the last few years has essentially centered around the fact that the industry is dead. And when you look at CD sales, that looks like a fairly plausible conclusion. CD sales have fallen by about 10 percent per year in the last three years. And the question is, what can we do to compete against this? Michael Eisner actually said, a few years ago, when thinking about the consequences for movie piracy coming down the road, he said, "Coming up with a business model that allows you to compete against a good, in fact, a perfect copy that's sold for free would challenge the greatest businessman that ever was."

How do complementors help us here? Well, let's just recognize the following fact. Although CD sales have declined in the way I just described, what's interesting is, over the same period, sales of personal computers, of CD burners, of MP3 players, of concerts, of merchandise, and even of broadband access, which really helps if you want to download music quickly, has increased. That suggests that thinking about the problem simply framed in terms of competition, buyers, and suppliers might be terribly incomplete. Because, if somehow the music companies could get a stake in this part of the business, that might even offset what's going on there.

Just think hardware and software. Microsoft is not averse to selling a lot of programs for free, like when it entered the browser market. Why? Because it's making money in the operating system. In fact, it suggests why it is the case that Apple coming up with iTunes should not have been terribly surprising. Apple makes money off its computers and now off MP3 players. It is a huge incentive for the complementary product to be sold at as low a price as possible.

In fact, seeing these developments over the last few years, Michael Eisner then revisited it and said the killer app in Silicon Valley is piracy, because it's companies like Gateway, Dell, IBM, Microsoft, Intel, and Verizon that actually benefit from piracy. What's interesting is those companies who have a stake in both. So you have companies like Time Warner, where Time Warner Cable benefits from the fact that Warner Music is actually being heard. Or Sony Electronics benefits despite the fact that Sony Music is actually being heard. So there might be internal tensions. But it suggests that ignoring the complements might be quite misleading in thinking about effective strategies to solve the underlying problem.

So it might be useful to think hard about who your complementor is. And the reason is everything else is framed in terms of threats. This is the most obvious opportunity.

### **Contextual Factors**

And finally, the contextual factors might include the institutional context; it might include the legal context, or the regulatory context, or the political context. And so clearly, that's something to pay careful attention to when thinking about which environment you operate in.

Here is some evidence which suggests why the context matters so much. This just looks like a bunch of colors, right? Let me just explain what's going on here. This study looked at industry profitability for a large group of industries in many, many different countries. To what extent are the profitability rankings or ordering correlated across markets, the same across markets? In other words, if it's the case that cable television and scheduled air transport are so lousy in the United States, does that transfer over into these other countries?

The red colors show the number of cases in which there was a positive correlation that was statistically significant. And the blue colors show the opposite. The bottom line is that there's a lot of yellow out here, which means that context really matters. It's very difficult to do an environmental scan in one market and assume that it translates over to another fairly easily.

### **Practical Steps**

All right, practical steps. Essentially follow exactly what we've been talking about during the last couple hours. When you think about doing any kind of five forces or, more generally, an environmental scan, focus on the players, not the products, first. Who are your buyers, who are your suppliers, potential entrants, substitutes, and so on? The reason I say that is, when we talk about industry, industry classification tends to make us focus on products, not players.

But as a way of thinking about competitors, this might be seriously inadequate because again it's focused in terms of products. It might be that, if I'm a leather jacket manufacturer, I'm actually competing for leather with companies that make handbags, shoes, and so on. If I'm in the bookstore business, I'm simply not competing with other bookstores, I'm competing with Amazon.com, as we all know. So, in other words, industry classifications that focus only on the product might be incomplete. Focus on the players.

Assess the strength of each force in the manner we've just described, and pay attention to changes in these as well. This is not something you do once and forget about it for twenty years. Things might be happening along the way that affect the trends and the strength of each force.

As a sniff test, once you've done the analysis, ask yourself, "Is the predicted attractiveness of the industry in line with actual profitability data?" That's a good sniff test. If it's not, you might want to go back and reevaluate.

And then once you have that, then you move on to step two, which is, assess how you might shape the environment.

And there's two ways essentially to do this. One is, turn the threats on their heads. Is there anything we can do to mitigate buyer power? Is there anything we can do to raise entry barriers? Is there anything we can do to reduce the threat of substitutes, for example, by cannibalizing yourself before others end up doing so?

Similarly, exploit the opportunities. Expand the availability of complements because it's better for you if there are complementary products that are cheap and widely available. Intel does this all the time. The thing they're worried about is that there's going to be saturation in their business. So what do they do to expand complements? They say we're going to invest in small videoconference companies. To the extent we can offer those products, that requires a lot of speed and a lot of memory from the computer. That makes faster microprocessors more valuable. So they are always looking for these kinds of complements.

### **Common Pitfalls**

Some common pitfalls: failing to recognize one or more of the forces. In particular, you should draw your attention to substitutes and complements. Ignoring trends or changing the strength of each force. Confusing evidence with cause. So, for instance, we might say our customers are very price-sensitive. But that begs the question: Why are they so price-sensitive, and is there anything we can do to mitigate that? Paying equal attention to all forces. In other words, although the framework suggests that it might be useful to map out the forces in this way, it might be the case that most of what you have to be concerned about really comes from simply rivals or suppliers.

In thinking about exploiting opportunities and mitigating threats, one thing that you might notice is that many of these forces interact. So if we're trying to deal with strong competitors in this part of the equation, what we do might actually end up affecting supplier power or the power of buyers.

### *DirecTV and cable*

And here's just one example, again in the context of DirecTV and the cable industry, of how this plays out.

DirecTV is basically direct broadcast satellite, satellite dishes. Rupert Murdoch and News Corporation ended up buying DirecTV last year. Their major goal is competing against cable. They're trying to get market share away from cable companies. How

are they doing this? Well, many people think they have an inferior technology; that, in terms of bandwidth, they simply don't have pipes that are as broad as cable pipes. So they're trying to use different service offerings. They're saying, "Let's actually bundle the ability to actually buy a dish and get satellite television with services or products like TiVo." So this is basically a personal videorecorder, right? It's just a device. It's like a smart videorecorder. It allows you to basically record programs as and when you wish in the way that the simple old VCR didn't. So, for instance, you might give it a command and say, "I'd like to record all episodes of *Seinfeld* for the rest of the year. You just sit back. And then you go back and you start watching these episodes. And then what's nice is, once you're watching it, you can just skip the commercials, just like you could do with a VCR.

The problem, of course, is that when you start skipping the commercials, that's the biggest nightmare for all content companies, which make their money off advertising revenue. In particular, News Corp. itself has a large chunk of its business that makes money off advertising. So in attempting to deal effectively with cable, we might actually shoot ourselves in the foot when it comes to extracting revenue from advertising from our Fox channels. That's one example of how these forces interact. It might not be quite so complex in many cases. I think entertainment and media is typically a case where you see a lot of players sort of playing multiple roles. But again, that's just a cautionary tale.

So one of the things we discussed was the danger in assuming that competitive forces cannot be altered because, as we saw, there are companies that have managed to successfully shape their environment. In fact, even in lousy industries, there are companies that do well. Let's look at two examples of industries, which we ranked in terms of profitability: semiconductors—fairly high; airlines—fairly low. The fact that, on average, semiconductors looks like a good business to be in doesn't mean that everyone's doing pretty well. Similarly, the fact that airlines is a lousy industry doesn't imply at all that you shouldn't be in this industry, as Southwest clearly shows.

And this is where industry structure links into competitive positioning, which is, once you've sized up your environment, the question is how might you compete effectively within that environment?

Thank you very much.