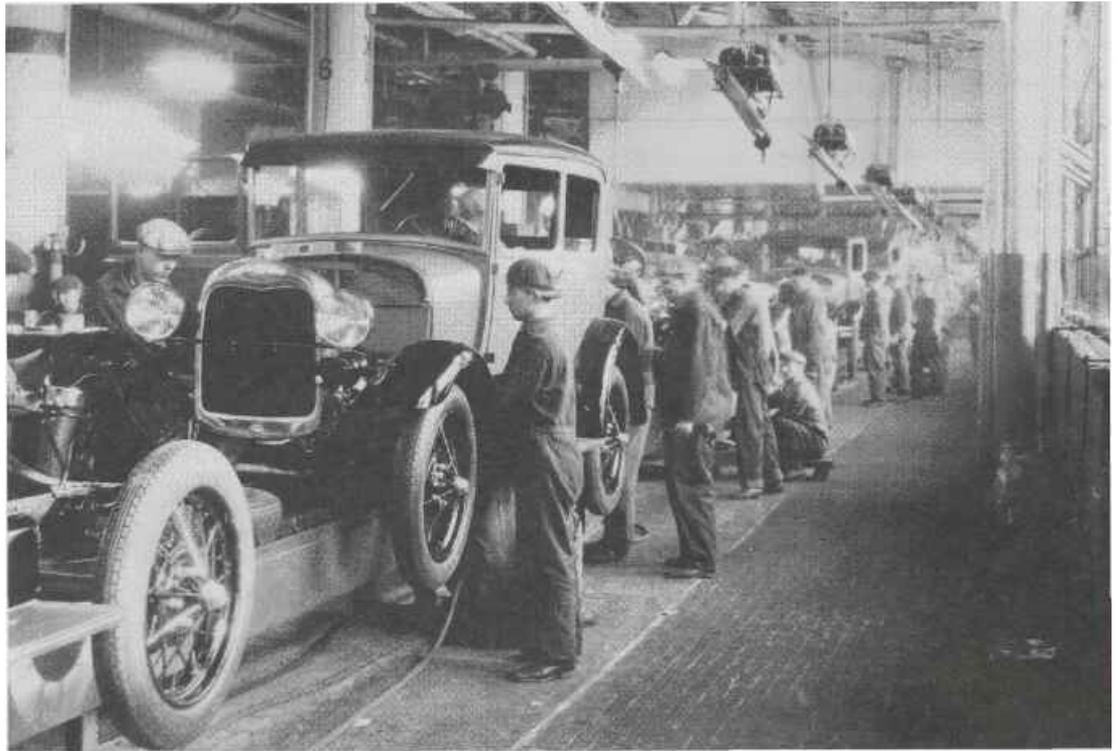


Industry maturity is a key driver of value chain design. By 1928, Ford knew that its industry's product and process architecture had stabilized.



## Collaborate or Race? How to Design the Value Chain You Need

Sometimes the most "enlightened" and collaborative supplier relationships are the wrong kind to create. How to know?

Assess not just your own company's needs, but the maturity of your industry. An interview with Charles H. Fine.

*[Note: The following are edited selections from the complete interview, coming soon to [sloanreview.mit.edu](http://sloanreview.mit.edu).]*

**In your work you usually talk about the "value chain." What do you mean by that?**

I distinguish between supply chain and value chain. Supply chain has historically addressed issues of logistics and the flow of materials, flow of information, flow of money. Value chain focuses on who gets the value in the chain, who creates value, who captures value, where is the value created — and how do you

think about that in a coherent manner. Another way to think of the distinction: In the supply chain/logistics domain, the focus is on questions such as, How do we become more efficient? How do we become more sustainable? How do we reconcile sometimes competing objectives such as efficiency and resilience? Those kinds of issues.

Thinking about the value chain is more about asking, How can we change the competitive landscape, and change our competitive advantage, through the design of our entire end-to-end value chain.

### **How do company leaders need to be thinking about value chain design now?**

Obviously, it's more complicated than this, but two of the main models to think about are called integral value chain architecture and modular value chain architecture.

Those models confront companies with one of the biggest questions: Do we work with the players in our value chain in a collaborative fashion with long-term objectives that are somewhat common, or are each of us out for ourselves in the short run? Is it win-win or zero-sum? If a company working with a supplier says, "If I can force a price cut down your throat, I gain, you lose," it's zero-sum. If a company is saying to its laborers, "I can force a wage cut on you, or I can outsource overseas to find lower wage rates," it's also zero-sum. Zero-sum is modular architecture.

Win-win is integral architecture. Among other things, companies that build integral value chains are incentivizing their suppliers to share innovation, because the attitude of the players is, We're all in this together and we benefit collectively from innovation, and there's a long-term trust-based relationship such that I know if I give you an innovation, we'll share the wealth.

### **Hey, I've kept up with my management literature — win-win is better. We should all design integral value chains for companies, right?**

Actually, no, not always. What turns out to be interesting is that it really matters what stage of maturity your industry is in. In relatively mature industries, which have well-established product and process architectures, it can be smarter to have win-win situations. In younger, less stable industries, in which it's still unclear which product and process architectures will become standard, an integral value chain design could kill you.

### **Can you describe some mature and immature industry examples?**

Think about the auto industry. In 1915 Henry Ford created the moving assembly line in process architecture around the same time that the industry's product became standard: steel body, four wheels, internal combustion engine. If we'd been in the auto industry then, we'd have known what the product architecture was going to be, and what the process

architecture was going to be. The industry was stable. As a result, we could have known who we should have long-term, trust-based relationships with.

At the other extreme, take an immature industry like biotech for energy. There are still so many process and product questions. Is it going to be based on algae? Is it going to be based on ethanol and corn? Is it going to be based on wood products? Is it going to be based on waste? We don't know yet. There's no dominant process or product technology. So, if you are in that business, how would you know who to have long-term trust-based relationships with if you don't have stability in the process and product architecture?

As a result, immature industries — think Silicon Valley — can't really have these long-term trust-based relationships because the rate of technological innovation, what I call the "clockspeeds," is so fast that it's very hard. It's a race; it's the fastest guy wins. In the more mature environments, the guy who wins is the guy who figures out how to get the best capabilities, drive down costs and create more value for the customer.

What's interesting is figuring out what happens as an industry evolves from immature to mature. The winners of the immature stage are the guys who are the fastest, but they often can't transition to become the winners in the mature stages. That's why General Motors lost to Toyota, why Boeing's losing to Airbus, why United Air is losing to Southwest Air.

### **OK, so link all this to supply chain management.**

It's bigger than supply chain, but it speaks to issues related to how you interact with your suppliers in different stages of the life cycle of an industry. To get innovation early in the life cycle, it's survival of the fittest, fast-rate competition. You need suppliers who are all about speed and flexibility. To get innovation later in an industry's life cycle, you need long-term, trust-based relationships with suppliers, where we're all in this together, we're going to work with you, we're going to work together and we're going to benefit collectively.

If you try to be too stable too soon, before your industry has settled on its standards, you could freeze on the wrong process architecture, wrong product architecture and wrong supplier. You can promise loyalty to them, but you can't deliver it.

**What industries are right in the middle of that transition to stability?**

Well, I expect Apple and RIM and Dell and HP are still not ready to have long-term, trust-based supplier relationships that last forever because things are still changing much too rapidly. Apple is in a terrifically fast clockspeed space.

**In your work, you've said that modular and integral approaches aren't the only ones.**

Yes. There's another way to think about relationships, besides zero-sum and win-win, and that's the open innovation world. One of the best examples of this is Procter & Gamble, and it's a very rich model for thinking about supply chain and how do you get innovations out of your supply base and your value network.

Procter & Gamble has access to a big distribution pipe through Wal-Mart and other places. Anytime they get a successful product, they can

and different models of supply chain design to create value collectively in the value chain.

**How can companies prime the pump to start thinking about all this and the three potential value chain paths in their own organizations?**

First, they have to understand the forces of dynamics in their own value chain. There are capital market dynamics. There are business cycle dynamics. There are innovation and technology dynamics. There are government and regulatory policy dynamics. There are customer preference dynamics, industry structure dynamics and corporate strategy dynamics. All together, they're interlocking gears. When one of these things, these dynamic forces, changes, it starts moving the other one.

A good exercise is to draw a picture of your value chain. Actually sketch it out, and look at when is integral good, when is modular good, when is open

innovation good. And have four other people in your business do the same thing. You'll all come back with five totally different drawings. When I do this with companies, I'll have them present to each other. They'll say, "I like that. I like that." Then I'll send them back and ask them each to

do it again. And after about three iterations of this, they'll come to some kind of agreement.

The point of the exercise is twofold: First, you see that everyone in an organization sees different things. It's like the blind men and the elephant: One is aware of the tail, one is aware of the trunk, one is aware of the ear. It's not that they get it wrong, it's that they don't get it complete. Second, with a few iterations and some coaching, they do end up with a picture of what I call the static snapshot of the value chain.

**Then are they set?**

Nah. I would say that if there's one other dimension that I emphasize, it's that we're in an age of temporary advantage. All advantage is temporary. Maybe there's some stability there, but in the actual implementation, no matter what you come up with today, you're going to have to change it, even in the mature space, at a very high level. Life is not easy.



The winners in an industry's immature stage are the guys who are fastest, but they often can't transition to become the winners in the mature stages. — CHARLES H. FINE

market and distribute the hell out of it and push it through their big funnel out the other end. Now, it used to be that all Procter & Gamble products were developed in Procter & Gamble R&D labs, but then they said, "Well, why not use the world as our lab? Let's try to create mechanisms to find innovations, ideas and new products anywhere." The value proposition is: Give us your idea, and we can distribute it in the millions, if not billions, of units, and you get a smaller piece of a lot more units. We'll do the marketing and the product development. We have a channel, and we need innovations.

Like I said, this way of thinking goes under the heading "open innovation," but I think of it explicitly as a supply chain story. It's a way for companies to go outside the organization to look for sources of supply ideas, product ideas or other ideas that it can productize and put through its machine. It's another model of how people are using supply chains