A Valuable Chain

Real World Strategies for Analyzing the Value Chain, Applying the VRIO Framework (Resource Based View), and Recognizing Core Competencies

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What I Didn't Learn in Business School: How Strategy Works in the Real World

By

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A CHARACTER LIST

In order of appearance . . .

Justin Campbell: Justin is beginning a new job as an associate at an international management consulting firm. He is from Willow Springs, Texas, majored in mathematics at the University of Texas at Austin, worked as a systems engineer at a high-tech firm, and most recently graduated from a highly respected MBA program.

Vivek Chatterjee: Vivek is a native of India with a PhD in chemical engineering from the University of California at Berkeley. Also an associate at the consulting firm, Vivek has two years of consulting experience.

Gordon Lee: Gordon grew up in Connecticut, studied mathematics and economics at Yale, and worked on Wall Street for two years before earning an MBA from Harvard. He has been with the consulting firm for several years.

Ken McCombs: Ken is a senior director at the consulting firm who develops and maintains relationships with several client organizations. A California native and Stanford MBA with extensive venture capital experience, Ken has been with the consulting firm for over twenty years.

Livia Chambers: Livia graduated from Northwestern University, received a law degree from the University of Chicago, and practiced law briefly. Livia will manage Justin's engagement on a day-to-day basis. She is six years into her consulting career.

Carl Switzer: Carl has been the board chair, CEO, and president of HGS for the past four years. Carl joined HGS in the R&D function over thirty years ago, after receiving a PhD in chemical engineering from the University of California at Berkeley.

A CHARACTER LIST

Scott Beckett: Scott is the vice president and general manager of the oil and gas products division at HGS. This is the largest and most profitable division in the firm. He has over thirty years experience in the oil and gas industry.

Bob Hutchins: Bob is the vice president and general manager of the packaging division at HGS. Bob's background is in sales. His division is smaller and less profitable than the oil and gas products division.

Shirley Rickert: Shirley is the chief financial officer at HGS. She received her MBA at Wharton and had twenty years of experience in corporate finance prior to becoming CFO at HGS two years ago.

Walter Albright: Walter is the vice president of research and development at HGS. With a PhD in chemical engineering from Purdue and twenty years of experience in R&D at other specialty chemical firms, he joined HGS in his current role five years ago.

Bill Dixon: Bill's formal position is in corporate human resources, although he acts more as a special assistant to the CEO. A former plant manager in one of HGS's Mexican facilities, he was reassigned to corporate headquarters three years ago.

Jackie Condon: Jackie is Justin's girlfriend. They met while he was studying for his MBA and she was studying for a master's degree in clinical psychology. She is currently a PhD student in clinical psychology at UCLA.

Jerry Tucker: Jerry works in the R&D group at HGS and is generally credited for inventing the new technology the strategy team is evaluating, code-named "Plastiwear." He has a PhD in chemical engineering from Case Western Reserve University.

Leonard Kibrick: Leonard also works in the R&D group at HGS. His current assignment is to lead a team of scientists investigating alternative uses of Plastiwear and related technologies. His PhD is in chemical engineering from MIT.

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A VALUABLE CHAIN

My lunch with Livia was both unexpected and enlightening. I felt connected to her, in an odd way—we had shared a lunch at her "secret" restaurant. She seemed nice, with an easy and genuine smile, and for a second, I could see how romances could begin in an intense work setting like this one—two smart, ambitious people thrown together in a high-pressure project, working long hours.

This fantasy evaporated when I reminded myself that, first, I had a girlfriend, and second, at our "secret lunch," Livia and I had talked about synergy and vertical integration—not exactly romantic topics. She obviously wasn't starry-eyed about me.

After lunch, Livia was scheduled to meet with some other HGS managers and I headed back to the team room. When I got off the elevator two floors before she did, all she said was, "Bye, Justin"—with one eye on her BlackBerry.

Back in the team room, I began organizing my thoughts. Livia had made a pretty compelling argument against using the packaging division's space to manufacture Plastiwear and shirts. She reminded me of something my mother used to say—just because you can do something doesn't mean you should do it. My mom used to say this just after I had done something stupid.

Of course, Livia's arguments didn't mean that HGS shouldn't go into the shirt industry, only that there wasn't a compelling reason to use the packaging division's space to do so. What I had learned in my MBA program was that, in the end, HGS's decision to pursue this opportunity—or not—would ultimately depend on whether it could gain and sustain a competitive advantage from doing so. If HGS could gain a sustained advantage from entering this market, our recommendation to move ahead would be strong and clear. If such an advantage was not likely, then HGS should consider selling Plastiwear to a firm better positioned to create a sustained advantage with it. At the least, they should consider licensing the technology to such a firm.

In my MBA program, I had also learned a simple way to evaluate whether or not a strategy was likely to be a source of sustained competitive advantage. It depended on the answer to four questions, something called the VRIO framework.

First, is a strategy valuable? Does it increase a firm's revenues or reduce its costs compared to not pursuing the strategy? Providing value to customers above and beyond what competitors offer is usually the most obvious way to increase a firm's revenues. Eliminating waste from operations or changing the firm's business model to make it more efficient is the quickest route to cost reduction, although location decisions, improvements in quality, and other strategic choices contribute to both top-line and bottom-line value-add. Obviously, strategies that aren't valuable can't be a source of competitive advantage.

Second, does a firm possess unusual skills or other assets that this strategy would utilize? This is the question of rarity—if many firms all have the ability to execute the same strategy, then that strategy will

Justin's notes on the VRIO framework

VALUABLE: Will a strategy increase a firm's revenues/reduce its costs compared to what would be the case if this strategy were not pursued?

RARE: Does a firm possess unusual skills needed to execute a strategy?

IMITABLE: How long will it take other firms to imitate this strategy?

ORGANIZATION: Is a firm efficiently organized to implement a strategy?

- Valuable strategies, by themselves, are only sources of parity.
- Valuable and rare strategies are sources of temporary advantage.
- Valuable, rare, and difficult-to-imitate strategies are sources of sustained advantage.

probably not be a source of advantage. This doesn't mean that valuable, but common, strategies aren't important. Lots of firms have created economic value through valuable but common strategies. Firms shouldn't expect, however, to gain advantages from these strategies—they are only a source of competitive parity, the table stakes that a firm has to ante up to be able to compete.

On the other hand, valuable and rare strategies can be a source of at least a temporary—and sometimes very lucrative—advantage. In fact, numerous firms "make their living" by implementing a series of strategies, each of which is only a source of temporary advantage.

Third, how long will it take other firms to imitate your strategy? Strategies that are hard to imitate—assuming they are also valuable and rare—are more likely to be a source of longer-lasting competitive advantages. If, on the other hand, competitors can begin to imitate a firm's valuable and rare strategy as soon as it becomes public, then that strategy will create only temporary advantages.

I had learned that a firm's strategies can be difficult to imitate for several reasons. Some strategies rely on assets that may be protected by patents. Or maybe the execution of a strategy requires skills that took a particular firm many years to develop. Maybe their execution depends on trusting relationships among a firm's managers, between a firm and its suppliers, or between a firm and its customers which are often difficult and time-consuming for others to replicate. Sometimes it can even be difficult for competing firms to describe exactly why a particular firm has an advantage. Obviously it is hard to imitate what you can't even describe! Whatever the reasons, firms that implement valuable, rare, and costly to imitate strategies will often be able to gain more sustainable advantages.

The fourth question focuses on organization—is a firm organized to execute and protect its sources of advantage? According to my professors, organization—things like a firm's reporting structure, management controls, and incentives—enables firms to realize the full potential of its strategies. But the question of organization often hadn't required an answer, since I found that answering the first three questions in this framework was usually enough to crack a case.

After some more reflection, it struck me that a VRIO analysis of packaging's proposal to manufacture Plastiwear shirts led to the same conclusions that Livia had come to. In particular, even if there was demand for Plastiwear shirts—meaning this manufacturing process might be valuable—there was no reason to believe that HGS had any special shirt-manufacturing skills. In other words, nothing rare in this area.

So, a VRIO analysis suggested that making shirts wasn't likely to be a source of advantage for HGS. What did it say about the other steps in the Plastiwear shirt value chain? Did any of these steps—from doing basic R&D, purchasing raw materials, manufacturing fiber, weaving the fabric, designing the shirt, branding these designs, cutting and assembling shirts, inventory management, distributing the shirts to retail outlets, all the way to selling the shirts to final customers—have the potential to generate sustained advantages?

To examine this possibility, I listed these steps in the Plastiwear value chain down one side of a pad of paper, and the VRIO questions across the top. For each of these stages, I asked just the most important three questions: Are there opportunities here for HGS to increase its revenues and/or decrease its costs? Does HGS have any unusual skills in pursuing these opportunities? Will it take other firms significant time to imitate these strategies?

I then began to fill in the matrix, based on what I had heard in my interviews and what I had read from various industry reports. Some lines were easy to complete—Hutchins had suggested that volume purchasing was an important synergy. No doubt, if volume purchasing was possible—and I didn't know this yet—this would reduce HGS's costs. But it seemed very unlikely that HGS had any unusual skills in this area. I would need to check this out, but my guess was that most reasonably sized specialty chemical firms had volume purchasing programs. This meant that volume purchasing was probably valuable—it reduced costs—but not rare. So, rather than a compelling synergy, as Hutchins hoped, VRIO analysis suggested that volume purchasing was likely to be table stakes for operating in the specialty chemical industry.

I came to similar conclusions about manufacturing the Plastiwear fiber. Again, Hutchins had said that this process was standard; in other words, that HGS wouldn't have to develop any special skills in this activity. If this was true—and I definitely needed to verify this—then even if Plastiwear shirts were in demand, fiber manufacturing would probably

Justin's VRIO analysis of the Plastiwear shirt value chain

Stages in the value chain	Are there opportunities in this stage for HGS to increase revs/decrease costs?	Does HGS have any any unusual skills in executing this strategy?	Will it take other firms significant time to imitate this strategy?	Advantage potential?
R&D				
–License Plastiwear	?	Experience with Plastiwear	Maybe—patent + experience	?
–Alternative uses	?	Experience with Plastiwear	Maybe—patent + experience	?
Acquire raw materials				
–Volume purchasing	Probably	Probably not	?	At best, parity
Fiber manufacturing	Probably, yes (if shirt demand exists)	Probably not	—	At best, parity
Fabric weaving	?	?	?	?
Cut and assemble	Probably, yes	Probably not	—	At best, parity
Deliver shirts	Probably, yes	Probably not	—	At best, parity
Retail sales				
–Open retail stores	?	?	?	?
–Internet sales	?	?	?	?

A firm's *core competencies* are those activities it engages in that (1) create economic value, (2) are rare among competitors, and (3) competitors find difficult or costly to imitate.

not be a source of advantage for HGS. The company would have to get good at it—or outsource it to someone who was good at it—but actually fabricating the fibers would not likely ever be a source of advantage.

While some lines in my matrix were easy to complete, what I really discovered through this analysis was how much I didn't know about Plastiwear. Unanswered questions were all over the page! Even more important, I didn't really have a good sense of the kinds of opportunities that might exist in different stages of the Plastiwear value chain.

For example, most of the work at HGS to this point had focused on going into retail stores to sell shirts. As far as I knew, no one had yet considered selling Plastiwear shirts on the Internet. Also, almost everything I had seen up to this point examined Plastiwear and white shirts. Had anyone considered the possibility of alternative uses for Plastiwear? Maybe aprons for professional chefs?

While, in one way, all these unanswered question were discouraging—I had, after all, been working like a crazy man over the last couple of days—in another way, they were exciting. As I saw it, my job now was to fill in as many of these question marks as possible. That would help me identify those stages in the Plastiwear value chain that had the most potential for creating sustained advantages. If no stages had this potential—well, in that case, I would have a hard time recommending a substantial investment in Plastiwear.

This matrix also helped me understand one of the points Ken had made. Evaluating any isolated stage of the Plastiwear value chain—like whether or not the retail shirt market was attractive—completely misses the point. The retail shirt market may be a critical part of the analysis, but HGS could get into, say, the fiber and fabric business and then sell the fabric to firms that, in turn, made the shirts. And those firms could then sell finished shirts to retail companies to sell to final consumers. Getting into Plastiwear didn't mean, necessarily, getting into the retail shirt market. It should mean getting into those parts of the value chain where HGS could gain and sustain an advantage. If you ask the wrong question, about the wrong industry, it doesn't really matter what the answer is.

Maybe HGS managers focused on the attractiveness of the shirt industry because it was the most obvious way to exploit Plastiwear. Or maybe—like Ken said—it was the kind of opportunity that would lead to decisions closely aligned with the interests of at least some HGS managers. Or maybe HGS just fell too hard for the first product prototype R&D came up with. Whatever the reason, the value chain on my pad helped me see that the decision about whether or not to invest further in Plastiwear did not depend solely on how attractive the retail shirt market was. Instead, it depended on the ability of HGS to exploit its competencies in Plastiwear in different stages in the value chain.

As I thought about competencies, I realized that my matrix also helped make sense of the debate about "core competencies" I recalled from our first client meeting. Systematically looking for defensible, distinctive value was helping me identify HGS's sources of core competence—if it had one—in the Plastiwear shirt business. The more valuable, rare, and difficult to imitate the activities HGS engaged in, the more likely those activities would contribute to a core competence in this business.

I wrote at the bottom of my paper: "A firm's core competencies are those activities it engages in that (1) create economic value, (2) are rare among competitors, and (3) competitors find difficult or costly to imitate." I had a feeling I was leaving something out—but I was definitely onto something!

To me, this was a breakthrough in my thinking. Core competence wasn't just a buzzword to me now. VRIO was no longer just a lecture I'd heard, but a tool I could use to examine real-world strategies.

It had taken several hours of concentrated focus, but for the first time on this engagement, I began to feel like I actually knew what I was doing. I was still a rookie. I still had a lot to learn. Obviously, I didn't exactly know what HGS's distinctive competencies with respect to Plastiwear were yet—or how profitable they might be. But at least I knew the kinds of questions I needed to ask to figure this out. At least I knew what my next move was going to be. All I had to do was figure out the answers to all the questions in my matrix, and I would be able to crack this case.

My phone's ringtone interrupted my thoughts. Hoping to see my girlfriend's number, I glanced at the caller ID. It was Ken. Suddenly, I felt transported back in time to Sunday evening, the flight into Chicago. Five minutes earlier, I had felt champagne powder, with a clear view of my next turns. Now, I felt—well—turbulence!

REFLECTION QUESTIONS

1. Do you agree with Justin's conclusion, "If you ask the wrong question, about the wrong industry, it doesn't really matter what the answer is"?
2. Why is it not sufficient for a strategy to be both valuable and rare?
3. Justin is pleased that his work is progressing well. What suggestions would you give him at this point?
4. Justin's analysis seems to be raising a lot of questions he can't answer. Is this a problem? Why or why not?
5. How should Justin follow up with Livia after their lunch conversation, if at all?
6. What do you think Ken wants to talk to Justin about?

A READING LIST

Each chapter in the novel raises one or more issues that can have an impact on the ability of a firm to develop and execute strategy. These notes identify these issues by chapter and then suggest additional readings that can be helpful in thinking about them. When appropriate, the additional readings include chapters from two strategic management textbooks:

- Barney, J. B. *Gaining and Sustaining Competitive Advantage*. 4th ed. Upper Saddle River, NJ: Pearson, 2011 [referred to as Barney (2011)].
- Barney, J. B., and W. Hesterly. *Strategic Management and Competitive Advantage: Concepts and Cases*. 3rd ed. Upper Saddle River, NJ: Pearson, 2010 [referred to as Barney and Hesterly (2010)].

Barney (2011) is a more advanced textbook, full of graphs, charts, and equations. Barney and Hesterly (2010) is less technical, but covers many of the same topics as Barney (2011).

In addition, some topics discussed in this book are marked as a *core strategy topic*. These are topics that are covered in most strategic management textbooks and widely applied in developing and executing strategy.

CHAPTER 5: A VALUABLE CHAIN

The VRIO Framework for Analyzing Internal Capabilities (core strategy topic)

The framework that Justin applies in the first part of this chapter is derived from what is known as resource-based theory.

Suggested reading: This theory is explained in detail in J. Barney and D. Clark. The economic underpinnings of this theory were articulated first by E. Penrose. The VRIO framework was first presented in J. B. Barney.

- Barney, J. B., and D. Clark. Resource-Based Theory: Creating and Sustaining Competitive Advantage. New York: Oxford University Press, 2007.
- Penrose, E. *The Theory of the Growth of the Firm*. New York: Wiley, 1959.
- Barney, J. B. "Firm Resources and Sustained Competitive Advantage." *Journal of Management* 17, no. 1 (1991): 99–120.
- Barney (2011): Chapter 5.
- Barney and Hesterly (2010): Chapter 3.

In this book: See pages 76–81.

Value Chain Analysis (core strategy topic)

The way Justin identifies potentially valuable strategies is to apply the value chain to the white shirt industry.

Suggested reading: Among the first to use the value chain to describe a firm's business was M. Porter.

A READING LIST

- Porter, M. *Competitive Advantage*. New York: Free Press, 1985.
- Barney (2011): Chapter 5.
- Barney and Hesterly (2010): Chapter 3.

In this book: See pages 75–82 and 164–166.