

Internal Analysis

Earlier we explained differences in firm performance as being a function of their external environment. However, this is only part of the story. Obviously, each firm has some unique aspects. How can these be analyzed to understand differences in firm performance?

Resources and Capabilities. Economics generally models firms as generic black boxes that transform inputs into outputs in an efficient manner. Edith Penrose (1950) is generally credited with being the first person to model firms as unique bundles of resources. Some individuals like to make distinctions between resources, what companies have, versus capabilities, things companies can do. A classic example might be my personal computer. As a resource it is more powerful than the original computer on the Space Shuttle, however, I could not land the Space Shuttle with it. So in this case I have a superior resource but an inferior capability.

Resources and capabilities can take many different forms. Literally anything an organization possesses can be considered a resource. Examples include financial resources, plants, equipment, technology, reputation, brands, and organizational expertise. In short there is no potential constraint on what can be considered a firm's resources or capabilities.

VRIO Analysis

Given that almost anything a firm possesses can be considered a resource or capability how should you attempt to narrow down the ones that explain why firm performance differs? In order to lead to a sustainable competitive advantage a resource or capability should be Valuable, Rare, Inimitable (including non-substitutable), and Organized. This VRIO framework is the foundation for internal analysis.¹

If you ask a business person why their firm does well while others do poorly, a common answer is likely to be "our people." But this is really not an answer, it may be the start of an answer, but you need to probe deeper, what is it about "our people" that are especially valuable? Why don't competitors have similar people? Can't competitors hire our people away? Or is it that there something special about the organization that brings out the best in people? These kinds of questions form the basis of VRIO and get to the heart of why some resources help firms more than others.

Valuable. A resource is valuable if it helps the organization meet an external threat or exploit an opportunity. While it may not help the firm outperform its competitors, it can still be labeled a strength. One good way to think about valuable resources is to ask how they help the company. Common competitive foundations (a.k.a. the generic building blocks) for firms are efficiency, quality, customer responsiveness, and innovation. If a resource helps bring about any one of these four things then it is valuable.²

¹ VRIO analysis is at the core of the resource based view of the firm. Wernerfelt, B. (1984). "A resource-based view of the firm." *Strategic Management Journal*, 5, pp. 171-180. Barney, J.B. (1991). "Firm resources and sustained competitive advantage." *Journal of Management*, 19, pp. 99-120.

² Hill, C.W.L., and G.R. Jones (1998). *Strategic Management Theory: An Integrated Approach*, 4th. Boston: Houghton Mifflin.

Efficiency is simply the amount of output for any unit of input, and is probably the most obvious way a firm can obtain an advantage. If a firm is a more efficient producer of goods or services than its competitors then it has an advantage.

Innovation is devising new products or services (product innovation) or new ways of producing/delivering goods or services (process innovation). Product innovation is of direct benefit to the organization because an organization can have at least a temporary monopoly on the new product. Process innovation generally influences efficiency rather than having a direct effect.

Quality is the idea that the good does what it is designed for exceptionally well.

Customer Responsiveness is simply meeting the needs of the customer exceptionally well. It is probably the broadest of the three because it can encompass things like merchandise returns, hours of availability, etc...

A resource that isn't even valuable, e.g. tarnished brand name, is best labeled a weakness.

Rare. A resource is rare simply if it is not widely possessed by other competitors. Of the criteria this is probably the easiest to judge. For example, Coke's brand name is valuable but most of Coke's competitors (Pepsi, 7 Up, RC) also have widely recognized brand names as well, making it not that rare. Of course, Coke's brand may be the most recognized, but that makes it more valuable not more rare in this case.

Inimitable. A resource is inimitable and nonsubstitutable if it is difficult for another firm to acquire it or a substitute something else in its place. This is probably the toughest criteria to examine because given enough time and money almost ANY resource can be imitated. Even patents only last 17 years and can be invented around in even less time. Therefore, one way to think about this is to compare how long you think it will take for competitors to imitate or substitute something else for that resource and compare it to the useful life of the product.

Another way to help determine if a resource is inimitable is why/how it came about. Inimitable resources are often a result of historical, ambiguous, or socially complex causes. For example, the U.S. Army paid for Coke to build bottling plants around the world during World War II. This is an example of history creating an inimitable asset.

Generally, intangible (also called tacit) resources or capabilities, like corporate culture or reputation, are very hard to imitate and therefore inimitable.

Organized. A resource is organized if the firm is able to actually use it. Generally, organization is frequently neglected by strategy because it often deals with the inner workings of firm management. The good news is that rarely are firms not organized to exploit their valuable resources. However, if your analysis does turn up a valuable, rare, and inimitable resource that the firm is not taking advantage of, then this should probably be your number one recommendation!

Many scholars refer to core competencies.³ A core competency is simply a resource that is VRIO. While VRIO resources are the best, they are quite rare and it is not uncommon for successful firms to simply be combinations of a large number of VR_O or even V__O resources and capabilities. Recall that even a V__O resource can be considered a strength under a traditional SWOT analysis.

Finally remember that VRIO analysis is done on each individual resource not on the firm as a whole.

Business Functions and the Value Chain

As we noted, resources are quite common in firms. However, there is often a tendency to focus on resources that are currently trendy or frequently mentioned in the news (see Fad Surfing -- p.____). This can lead to very poor analysis or assessment of why firm performance differs. A way to fully examine a firm for resources that are valuable is to use a value chain.

A value chain is a graphical representation of a firm that splits it up into each of its component functions, e.g. R&D, production, and marketing, and tracks how inputs move through these functions on their way to becoming an output. Each function of the firm can be a potential source of VRIO resources. By analyzing each function individually you are less likely to miss important resources. This will also be helpful in examining alignment (see next chapter.)

Explaining Many Business Failures

Frequently formerly successful business run into problems or fail outright. There are a couple of common themes in these failures that scholars have looked at that might be helpful to keep in mind.

Inertia.⁴ It is a well known cliché that people are resistant to change. Organizations, with their policies and procedures, past history, culture, and tradition are no different. It is often especially difficult to change if things are going well. However, over time, even resources that were VRIO can lose their value and turn into weaknesses or what some term, core rigidities. Therefore, inertia is simply the difficulty firms apparently have in changing their processes or routines. It goes a long way towards explaining why firms that dominate in one generation of technology do not successfully make the transition to the next generation, e.g. IBM & personal computers.

Prior Commitments. Another very common but frequently not very discussed explanation for firm failure is the prior or existing commitments firms have in markets or to various stakeholders. The problem of prior commitments is most clearly illustrated by the danger of cannibalization of an existing product by a new product. If a firm has a (truly) new and improved product that its competitors don't have yet it may be reluctant to introduce the new product because it will cut into sales of the existing product. This is the problem of cannibalization. It also applies to franchises who frequently receive exclusive territories. Franchisees don't want to over saturate an area with stores. Interestingly, Starbucks, whose

³ Prahalad, C.K. and G. Hamel (1990). "The core competence of the organization." *Harvard Business Review*, 90, pp. 79-93.

⁴ Hannah, M.T. and J. Freeman (1984). "Structural inertia and organizational change." *American Sociological Review*, 49, pp.149-164.

stores are largely corporate owned, does not have this problem as it frequently opens up outlets that may cannibalize each other. Their willingness to do this probably explains more of their success than the taste of their coffee. ☺

Icarus Paradox.⁵ Named for the mythical Greek who flew too close to the sun, the Icarus Paradox often refers to firms that become too focused in one area. Over reliance on a single business function or resource increases the risk that an external change will marginalize the value of the entire organization. Helping prevent this is another reason to use a value chain to fully identify all the valuable resources in the firm.

While these three items are related they are distinct. Inertia refers to how difficult it is to change, while prior commitments refers to why firms don't want to change. The Icarus Paradox is firm's misdiagnosing their resources value in relation to external threats and opportunities. Of course, while different, they are not mutually exclusive, you can have a firm experiencing a mix of all three. This usually shows up with groups inside the firm fighting amongst themselves, e.g. one group wants to change, another doesn't (prior commitments), another makes it difficult to change (inertia), while another wants to keep investing more resources in the company's "crown jewels" that have made it successful in the past (Icarus Paradox).

Avoiding Failure. How can the organization avoid failure? There are a few rules of thumb that might be helpful. First, remain mindful of the generic building blocks. If you are working to make your organization more efficient, innovative, customer responsive or increasing quality you are probably on the right track. Second, encourage a learning environment in your organization. While it too has probably become over used, striving for continuous improvement can help avoid failure. Third, attempt to develop realistic views of what best practices are in your industry and what your competitor's costs and performance measures are. Frequently, firms will swap data with each other about aspects of their performance. Also, this is one area where consultants can be uniquely useful. Finally, organizations can fight inertia by regularly listening to new employees, workers who have contacts with customers or who provide the firm's good or service. While change should not be undertaken for its own sake nor to chase after the latest business fad, listening to employees and customers for ways to do things better is rarely the cause of spectacular business failure!

Luck

It should be acknowledged that the study of strategy has some critics, frequently in economics departments, that argue that explaining why firm performance differs due to industry, unique resources, or strategy is a mirage. Luck, the simple fact that some things go well sometimes just as they sometimes go poorly, is the simplest explanation for why firm performance differs. Given any group of firms, some will do better than others, any effort to explain why using industry and firm level factors is simply retrospective sense making, us going back and ascribing factors to explain the result we see.

This is a powerful critique and true as far as it goes. What luck generally cannot explain on its own however is the sustainability of firm success. In short, luck can explain initial advantages,

⁵ Miller, D. (1990). *The Icarus Paradox*, New York: Harper Business.

such as Bill Gates having a rich father who could loan him the money to buy the Quick and Dirty Operating System from Seattle Computer Products and then resell it to IBM.⁶ However, luck has a hard time explaining everything at Microsoft since then. Therefore, while luck is clearly important in firm success, just as it is in personal life, since there are things beyond our control, I hope you will concur that more is going on than just chance.

⁶ A full version of this story appears in Cringely, R.X. (1992) *Accidental Empires*, New York: Harper Collins.