

From critical resources to corporate strategy

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Suppose a new high growth segment opens up in your industry. Should you enter that segment? Many other firms are likely to enter as well. Will the returns justify the costs? If too many firms enter, and commit high levels of funding, your return on investment will be mediocre at best. This would be a disappointing experience, but it is one many companies have had in races for market share and technological advantage. Of course, this does not mean that you should not chase such opportunities. If you fail to do so, you might do even worse. It does, however, imply the following: on an even playing field, against well managed competitors, you cannot expect superior performance. You need to look for tilted playing fields, areas where you have a competitive advantage. Where do you have an advantage? You have the advantage in markets where your resources are superior to those of the competition. In such a game you can achieve a strong market position at a lower cost than your competitors.

The first step is to identify your resources. The second step involves deciding where to compete. Only then do you worry about how to compete. This shifts the focus of strategic analysis from the industry to the company itself [1]. Strategy formulation consists in the identification, deployment and development of resources. What principles govern this process in well-managed companies?

Critical Resources

A list of your company's resources would quickly get very long: this plant, that patent, such-and-such a brand name, a good manager here, a good R & D team there, etc. Only very few resources are critical in the sense that

[1] So this argument turns attention away from the industry focus suggested by Porter, M.E., *Competitive Strategy*, New York, NY, Free Press, 1980.

they can differentiate you from competition. The resource has to be unique. If competitors can buy or develop identical resources, they will do so until the field is overcrowded. But what unique resources can a company own? Not very many, apart from patents, brand names, mining rights and pieces of land. But there is hope. You can profit from a resource even if you do not own it! This may happen by trading with owners of a unique resource if these owners have a difficult time switching to alternative trading partners. To see how this works, it is helpful to look at an example. Let us say that one of your managers, Smith, is particularly good. Normally, you have to pay him a salary fully reflecting this, since competitors otherwise will hire him away. This process could conceivably continue until Smith's salary is commensurate with his skills, leaving no extra profits for the employer [2]. There are, however, two exceptions to this:

Team Effects. Suppose that Smith is good in part because he works well with Jones. Now if these two can agree to market themselves as a package, they may well be able to realize their joint value. However, if they cannot, your company can pay them their individual values and reap their (larger) joint value.

Specific Assets. Alternatively, it may be the case that Smith is more valuable to you than to other companies. Also in this case you will be able to pay him less than what he delivers.

The point here is that you can profit from trading with people who have poor or costly alternatives. Just trading with the owner of a unique resource will not do it. But if the owner is tied to you, you can garner some of the profits from his resources. I will say that you share such resources.

When executives of large companies are asked to identify the basis for their competitive advantage, resources of this type figure prominently on the list:

We have a good management team.

Our marketing group is great.

We have suppliers who know what we want.

The development people are good at finding applications for our patents.

By now, the retailers know why our product is different.

Our R & D lab is doing very well.

This gives us a procedure for identifying the critical resources of a company.

[2] As far as I know, this argument was first articulated by Posner, R.A., 'The Social Cost of Monopoly and Regulation', *Journal of Political Economy*, 83, pp. 807-27, 1975.

It basically boils down to three questions. The natural question:

- Among the resources we own, which are unique?

as well as the more subtle, but often more important questions:

- Does any department perform better than their paychecks would lead one to expect?
- Does any supplier or buyer have major resources tied to us?

To be honest, this acid test is not likely to bring you any positive surprises. Most likely, you are already aware of those resources which pass the test. On the other hand, it may help you weed out a few – like the plant which really is not unique, or the superteam which is not paid accordingly.

The Capacity of Resources

After you have identified the critical resources you own or share, classify them according to their capacity. How much do you have of each of them? I have found that the following three-way scheme works very well in practice.

Fixed Assets – Resources with Fixed Long-run Capacity

Examples include plant and equipment, mining rights, employees with specific training, firm specific investments by suppliers or distributors, and so on. These resources are easy to think about but do not generally pose very challenging strategic questions. There are two reasons for this. First, they are typically only valuable in one or very few industries. The question of where to deploy them is therefore often simple. Second, you do not normally find yourself with excess capacity of such resources. So it is not likely that you have a lot of these resources to play with.

Blueprints – Resources with Practically Unlimited Capacity

Examples include patents, brand names and reputations. These resources often play a considerable role in strategy formulation. Essentially, for reasons opposite those given above, they may convey considerable advantage over a range of markets, and availability is not a real concern because their capacity is not limited. The recent trend towards 'umbrella branding' (we are Beatrice) and 'corporate identification' (ARA) represents an attempt to exploit resources of this type.

Cultures – Resources with Limited Short-run, but Unlimited Long-run Capacity [3]

We are here talking about team effects. Let us assume that we are working in a group whose functioning depends on interaction between specialists in several areas. As in any such group, we will develop a set of routines over time [4]. We will learn what other members can do, will do, and want to do. We will learn what they mean when they say something – e.g., ‘soon’. And we will learn how to solve recurrent conflicts. The point is that no two groups will develop the same social structure. In particular, some groups will end up with more efficient patterns of interaction.

If your company employs such a group it can be a critical resource. No single member can achieve the same level of productivity in a similar group in another company, nor can he single-handedly export the routines. On the other hand, you can clone the efficient group by socializing apprentices – not too many at any given time, but enough to make it interesting. For example, many companies have a policy of first training managers at headquarters before sending them to the divisions. Indeed, some Japanese companies, such as Matsushita, have all new employees take lessons in ‘corporate philosophy’. This type of resource may be applicable in many markets or in few industries. Executives in many widely diversified companies will claim that they prosper because of ‘good management’ and argue that their growth reflects the expansion in their pool of managers. On the other end of the spectrum, pharmaceutical companies normally stay within a few markets where their R & D skills apply. Or, firms like Proctor & Gamble confine their diversification to marketing intensive consumer products. Most generally, the more widely applicable a resource is, the less of a competitive advantage it confers.

How to Leverage your Resources

After you know your critical resources and the capacity of each, you are ready for action. You know the arsenal at your disposal. How do you deploy it?

When looking at this question in individual companies, I have found the following three classifications helpful: a resource can be used:

[3] A very exciting account of these resources is given in Penrose, E., *The Theory of the Growth of the Firm*, Oxford, Basil Blackwell, 1957.

[4] Nelson, R. and Winter, S., *An Evolutionary Theory of Economic Growth*, Cambridge, Mass., Harvard University Press, 1982, present a detailed description of this process.

- Independently
- In tandem with existing critical resources.
- In situations where complementary and specific resources need to be created.

Let us look at each case in turn and consider resources of each type. When doing so, it may be helpful to refer to Figure 1.

Figure 1. Types of resources and common ways to leverage them

Application	Fixed assets	Blueprints	Cultures
Independent application	Sell or rent	Use in-house	Use in-house
Paired application	Sell or rent	Joint venture	Merger
Customized application	Use in-house	Use in-house	Use in-house

Independent Application

This category contains instances where (excess capacity of) a critical resource can be used alone or in connection with noncritical resources [5].

Suppose first that the critical resource in question is a *fixed asset*: a plant, a piece of land, or a mining right. In many cases, you can harvest the profits just by selling or renting the resource to somebody else. For example, suppose a well-situated piece of land can be used for an office building. If that building can sell for two million dollars in excess of building costs, then you can realize (approximately) these two million dollars either by selling to a builder or by building and selling later. Most often, it is easier to sell such a resource and leave its management to an expert.

There are cases, of course, when this does not work. Consider a situation where you have excess capacity on a particular piece of machinery. If the machine is sufficiently reliable you may be able to 'rent', say, the night shift to someone else. However, if the reliability of the machine and the quality of the output depend on careful use and maintenance, this may be a strained arrangement. You may prefer using the capacity yourself, even if it takes you into new business areas.

Now let us look at *blueprints*. Again, here, you can sometimes sell or rent them. For example, many patents are routinely licensed. Normally, things are not so easy. You may worry about a licensee pirating your patent. Similarly, you can rent out a brand name, (e.g., Coca-Cola clothes) but it

[5] The following is roughly consistent with the perspective developed in Rumelt, R.P., 'Diversification Strategy and Profitability', *Strategic Management Journal*, 3, pp. 359-69, 1982, and Teece, D.J., 'Economic Analysis and Strategic Management', *California Management Review*, 25, No. 3, pp. 87-110, 1984.

puts you at risk. The renter may use the name in a way which reflects poorly on your entire business. To make it workable, you need to impose strict constraints on the renter. For example, McDonald's franchising contracts spell out many criteria which the franchisee has to satisfy in running its business. In many cases it is difficult to police the arrangement and the only possibility is to use the resource in-house and to diversify around it.

Consider, finally, *cultures*. Here there are few ways to rent them out without losing them. Your R & D laboratory may take on contract work, or your personnel department may sell training programs, but it is difficult to assess all the costs of such a contract. On the other hand, you would not want your marketing group to take on outside work for fear that valuable firm specific routines could leak out. Similarly you would never let your team work in other people's locations. If you really have a good group going, you do not want others to clone it.

Paired application

We here look at situations where a relevant co-specialized resource already exists but it is owned by another company [6]. For example, in 1973, when EMI wanted to leverage its CATSCAN technology in the US, it lacked a selling, service and training organisation geared to US hospitals. GE and a few other suppliers of medical technology had such organisations. Where the independent applications involved a choice between selling the capacity or using it yourself, we have two other options: the firms can merge or they can form a joint venture.

Where your resource is a *fixed asset*, it is often easy to sell or rent it: Therefore, if one of the two co-specialized assets is of this nature, it will most often be sold to the owner of the other resource. Since the resources only realize their full potential together, this may lead to some tough negotiations, but it should still be workable.

Suppose next that you want to leverage a *blueprint*. If the co-specialized resource is easy to buy or rent, you will normally want to do that. If not, the situation is tricky. To make it more concrete, let us think of you as having a patent and another company as having appropriate production and marketing skills. If you do not want to sell your patent, a merger is a possibility. However, this is not likely to be very attractive. Most often, both companies will have a host of different activities and to merge them all for

[6] A relevant reference here is Teece, D.J., 'Firm Boundaries, Technological Innovation, and Strategic Management', in Thomas, G.L., (ed.), *The Economics of Strategic Planning*, Lexington, Mass., D.C. Heath, 1986.

the sake of one project seems excessive. A joint venture is often the best solution.

For *cultures*, the joint venture option may be dangerous. If you are leveraging the skills of an R & D laboratory which is working far from your main business, this is fine. But if the resource in question is an integral part of your company, you cannot afford to 'let it out'. So it is often best either to merge the two companies or simply give it up.

Customized Application

I am here covering cases where a resource cannot be exploited in the market place without irreversible commitment of large sums of money [7]. For example, suppose you have a process patent, but its use requires a particular type of plant to be constructed; a plant which will be significantly less valuable if used for other processes. This is a classic problem. Is it possible for you to induce a supplier (or a buyer) to make investments that tie him to you?

You can always make the investment yourself, but it may not be in your area of expertise. If not, you need to convince somebody else that you will not turn around and take advantage of them once they have sunk X million dollars into the project. This is very difficult and may yet be very valuable. A famous – and failed – attempt is the relationship between General Motors and Fisher Body which after many years ended with a takeover by GM.

The 'normal' situation is that you have to do these things yourself. There are, however, two ways to avoid this:

First, you may be able to write a *contract* guaranteeing appropriate returns to the other party. Since we are talking about major investments, such a contract has to run over several years and it is necessary to cover all sorts of contingencies. The dangerous contingencies, of course, are those you cannot think of at first. And yet you know that unthought-of contingencies will arise. Most often, the viability of this option depends on the extent to which you and your partner can be made to feel comfortable with the contract and each other.

Second, the relationship may work because it is tied in to a series of such relationships. For example, most suppliers to Marks and Spencer, a British department store chain, have the vast majority of their capacity (often 90 per cent) dedicated to M & S. If these suppliers were dropped, they would face economic disaster. And yet, because M & S has done business this way

[7] See Tirole, J., 'Procurement and Renegotiation', *Journal of Political Economy*, 94, pp. 235-59, 1986, for analogous arguments.

for so long, with so many suppliers, they are trusted. In fact, you can feel pretty sure that they will honour that trust. If not, they would not be able to do business in the future. Similarly, an interesting relationship exists between major metal can makers (e.g., American Can, Continental Can, Crown Cork and Seal, National Can) and large users (e.g., brewers, soft drink bottlers). Most often, pairs of plants are located very close to each other. Given the high costs of transporting the cans, both parties are dependent on continued trade. What then prevents excessive jockeying for position? How can they persuade each other to do this? One reason is that these often are multiplant firms. They want to continue this in the future, but perhaps with different partners. Given this, they need to protect their reputations as 'fair' business partners. Such implicit contracts are very attractive, but less common in the US than in Europe or Japan.

Summarizing, critical resources can be leveraged in several ways, depending on the type of resource. Figure 1 highlights the most common ways to do this, but there are many examples of very successful deviations from these rules of thumb.

How to Grow your Pool of Critical Resources

In the introduction, when discussing product markets, I made the point that you cannot expect superior performance in a fair race against equals. Instead, you need to look for races where you have an advantage. If we apply this principle to resource markets, we get the following result: you cannot expect to make above-average returns on investments in physical assets or blueprints. Some investments will pay a lot, some will flop, and, on the average, the price of a critical resource is just its value.

With resources of the culture variety, things are a bit different. Once you have them, you can 'grow' them at cost way below the cost of imitation. Again, you do this by carrying staff beyond what is necessary for current operations. Of course, there is a limit to how fast you can grow a culture, but there is also a limit to how fast you can deploy it. The optimal rate of growth is difficult to characterize. However, management of the growth of these resources is the most important element in preparing your company for the future. They represent a class of investments whose returns are at least partially shielded from competitive pressure.

Guidelines for Action

To translate these principles into successful corporate strategy, a company should first take a hard look at its resources. Which are critical? Among these, which ones hold the greatest potential? When performing this analysis, it is vitally important that shared resources not be left out. Next, it becomes time to worry about deployment. Does your business mix sufficiently take advantage of your critical resources? If not, which markets could you exit without loss of above-normal returns? And which markets should you enter? Further, at the level of business strategy, are you competing in the right way? Is a particular joint venture or merger in order? In a make-a-buy decision, are you doing things others more appropriately could undertake? Finally, how can you manage your resource portfolio over time? What do you need to acquire or grow? How can you make sure that new resources, created through environmental changes, are identified in time for action?