The Geometry of Competition

By Bruce Chew

A former business school professor reflects on the meaning and existence of competitive advantage. His finding: Competitive advantage is very rare, competitive position is very real.

Identifying, building, and talking about advantage have been at the heart of my work both as a consultant and a business school professor for almost 20 years. Yet too much of the time I've found my own and others analyses of advantage to be like the famous Supreme Court writing on pornography: "I know it when I see it." And truth to tell I don't see it very often.

Consider a meeting I had recently overseas with a group of managers who made an industrial product. For the first part of the day I'd talked at length about the sources of competitive advantage. During the afternoon I lead a break out session on strategy where the question on the table was: What is your competitive advantage? It quickly became clear that they were not the low cost producer. Well then we must be differentiated. Well, maybe, but how? One manager responded, "we have a good reputation." To which the group replied, that is not really a competitive advantage. Another suggested, "Our products have features none of our competitors have." "Yeah, but they will soon," said another. We have good customer relationships. Yes, but that is not a competitive advantage either. Finally in a very senior manager jumped up and shouted "We don't have any freaking advantage—got it? Has everybody got that? No advantage. None!" He did it with a fair amount of volume and profanity displaying his frustration borne not from his colleagues but from his sheer inability to make his business fit within the frameworks I had so eagerly taught earlier in the day.

And that lesson has stood the test of time. Most competitors do not have a competitive advantage. That does not mean they don't do things well. They may have good products, good customer relations, and some excellent capabilities, but those things do not add up to a competitive advantage. Truly dominating a marketplace or even a market segment is an experience enjoyed by only a few firms. And perhaps because it is hard to point to in the marketplace, it has become fashionable to argue that competitive advantage is no longer relevant in the new economy. That it isn't achievable or that it is simply too static a concept for the dynamic world of today. I disagree.

Instead I would suggest that competitive advantage has been misunderstood. By defining it in the way we have, we've actually made it almost impossible for all but a few to create. A once rigorous academic definition has become a fairly static, self-referential notion of competitive advantage which can be translated in the following way: "Managers can gain superior financial returns by achieving advantaged positions; advantaged positions are those that enable managers to earn above average returns."

Perhaps the biggest issue in the way we have defined competitive advantage is that it is fairly one-dimensional. You either have it or you don't and to the extent that you have it, it comes in one of two varieties—low-cost or differentiated (with a focused flavor for subsets of the marketplace)—both of which are extremely rare in their purest form and to the extent to which they do exist are likely to represent the outcome or bundling of a set of capabilities and offerings which are dynamic in nature.

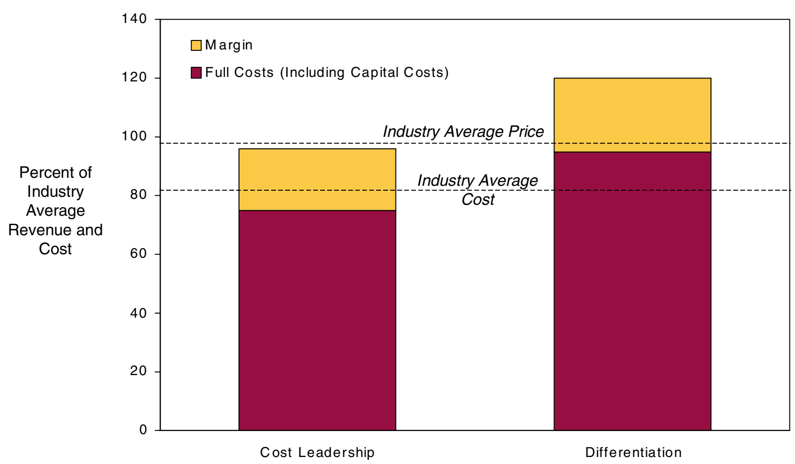
Our old descriptors tend to be descriptions of outcomes; not necessarily the things most closely linked to the creation of a good competitive position. They fail to isolate for managers the things they must do, the ways they must organize, and, as we will see, they fail to talk about the array of product offerings they must proffer to the market. No wonder people have argued that it is an unnecessary relic from another competitive era.

To move forward we need to reformulate our definition of competitive advantage in a way that focuses on a broader understanding of competitive position. In this way, competitive advantage can become not only more easily understood, but also more achievable and more relevant to managers at all levels.

Our conventional labels which purport to show us "strategic positions" such as—low-cost and differentiated—are really not about competitive positions at all. They identify alternate paths to outperforming the industry average. The low cost producer has a cost savings greater than its price reduction. The differentiated producer commands a price premium in excess of its added costs. See Chart One.

Chart One

What's traditionally masqueraded as strategic advantage is actually a depiction of operating results



However, these are not descriptors of position. They are about the financial returns that good positions bring. The labels are one level removed from things that managers actually manage. A new language is needed. An unambiguous language that focuses directly on competitive position, whatever it may be, and focuses less on the ability to financially outperform an industry.

Competitive advantage used as a shorthand has fallen short. As a framework it should give some guidance to what products or services we must sell; where I should be able to outperform the competitors; which sets of customers and which capabilities I should build over time. But it doesn't.

When our modern language of strategy was first developed it was intended to demonstrate that there are successful strategies that do not look like Ford's Model T. The biggest player doesn't automatically win and if they do it is not permanent. But as the new frameworks cast light by stressing the importance of differentiation and focus they also cast shadows. The simple truth is we need a language of position, not just labels for winning positions.

New Language For a New Time

There are three labels which we have used extensively when we talk about competitive advantage. They are "low-cost" advantages," "differentiated" advantages and "stuck-in-the-middle" which is a disadvantaged position.

But what do these terms really mean? Stuck-in-the-middle is definitely a statement about competitive position—but when is it disadvantaged? When we talk about low-cost and differentiated businesses we are usually talking not about position but about how to earn above average returns. What if I have lower costs but slightly lower performance? Is this an advantaged position or not? How differentiated do I have to be to have an advantage? Is there such a thing as too differentiated?

After struggling a good deal with these labels, I have come to believe that attaching the label is probably irrelevant. What matters is understanding a company's relative competitive position and how their actions affect that position. What is important for all managers is to create a map of where they are and where they might want to go and how that looks to other people. This can be of relevance to all managers rather than the exercise that had our struggling managers asking: "have we got one or not?" What's nice about this way of thinking is that competitive position is very real, competitive advantage is very rare. What's nice about this thinking is that finding out that you don't have competitive advantage is not the show stopper it once was—there's still a fair amount you can do to improve your competitive position if you know how to talk and think about where you are in relation to your competitors.

I've dubbed this framework the geometry of competition because unlike many management theorists which exhort managers to "find the white space" —this technique actually helps you map the competitive space and your position within it. The geometry of competition rigorously defines two types of multi-dimensional positioning; position related to offerings and position related to capabilities. It also explains what relative position means in a competitive context and when a position is advantaged over other positions. Let's begin with offerings.

While it may be firms that compete and managers that plan campaigns, the actual battles take place between *offerings*. They are the central element in the geometry of competition just as they are the central element in competition between firms. The customer's choice is at the center of the competitive world. In order to have competitive advantage which is linked to superior financial returns you must have a set competitive offerings—offerings that present a profile of price and performance that make them the most desirable choice for some set of customers.

But *capabilities* are the engine that drives offerings. The set of offerings you might put into the marketplace are both enabled and constrained by the past structural and infrastructural choices the firm has made. It is a very rare instance where strategy is literally conjured up from a blank sheet of paper. As a result, we must recognize that companies at a point in time have a relatively stable set of capabilities with which to create their offerings. These capabilities define the set of offerings that a company can offer.

Positioning is the fundamental strategic concept. When we speak of position, we must be explicit about what kind of position we are talking about. There are two kinds of strategically important positioning. There is the position of one offering vs. another. Understanding this type of positioning is critical to understanding what offerings will succeed in the marketplace. There is also the positioning of one firm's capabilities vs. another's. We don't compete on capabilities, but they play a most important role in creating the offerings by which firms do compete. Firms frequently have differing capabilities. Wal-Mart is not The Gap. These differing capabilities are built on differences in the sets of activities that firms, or more accurately, business units perform. They may also arise from different assets the firms own. This gives us the fundamental relationships that drive competitive dynamics.

ASSETS & ACTIVITIES → CREATE CAPABILITIES → ENABLE OFFERINGS

Offerings are the embodiment of strategy. They are the weapons with which competitive battles are fought. But the range of offerings a firm may choose is determined by its capabilities. These capabilities in turn are a reflection of the activities of the firm. To answer strategic questions these relationships may be explored in reverse: if I want to have that offering, what capabilities do I need? To gain those capabilities what assets and activities must change?

To understand which positions are likely to earn superior returns we must look beyond the shorthand of labels and understand how offerings and capabilities stack up against competitors. Consider for a moment the story of the Korean home electronics producer who at one point could lay claim to being the world's low-cost producer. If we simply look at the labels it would appear that they should have enjoyed superior financial returns. They did not.

The low-cost producer will always enjoy superior financial returns if she or he produces an offering identical to the competition at lower cost. But as real life constantly demonstrates, the low-cost/low-price offering often differs in significant ways from the offerings of rivals. For our Korean producer the choice of low-cost casings and the poor craftsmanship in things like getting name plates straight created a low-cost offering but one with all the hallmarks of a low-quality one. Low-cost capability doesn't matter if you don't win in the marketplace. If you want to have competitive advantage you have to have frontier capabilities, meaning you are the best at some metric customers care about. But you must also win in the marketplace. Having one or the other won't do it.

So we have a new definition of winning—of creating competitive advantage that leads to superior financial returns. Our experience has shown that there are three things a company must possess to have competitive advantage:

- Competitive Offerings
- Frontier Capabilities
- A Fit Between the Two

It's The Offering, Stupid

The value of a competitive position is determined by customers. As we saw in the earlier example, being the low-cost firm is not a path to competitive advantage if people don't want to buy your low-cost, low-performance offering. The flip side also holds. Maximum performance may not be attractive if it also maximizes costs. This seems to be a trivial observation, but it is surprising how often "strategists" fail to really adopt the customer's perspective in practice. One study of why most new consumer brands fail found that the majority of failed products were simply no better than products already available to consumers. A clear example of a failure to look at the world through a customer's eyes. Anyone who has worked with company strategies can point to examples of companies who were too internally focused. Inferior new offerings, strategic plans with no mention of competitive offerings, research and development (and often deployment) of offerings with attributes of no interest to customers, these are all too common in a company that cannot see the marketplace through customers' eyes.

Winning Offerings are Not Enough

So what is required of firms on the competitive edge? Winning offerings is part of the picture. But to have a competitive advantage you must be able to do something other competitors cannot. Unique capabilities are essential to competitive advantage. But how do we talk about capabilities?

Capabilities are derived from the activities of the firm. Distinctive capabilities come from a unique approach or particular aptitude with regard to some set of activities. It's only natural that when firms talk about their capabilities they speak in the language of the activities of the firm. "We have a world-class heat treating operation" a manager in Michigan once told me. But how do I connect that to strategy? One firm I worked with concluded that "Manufacturing is a Core Competence." Another concluded that "Manufacturing is not a Core Competence." In both cases I had to ask the obvious question, "So what are we going to do?"

In order to talk about capabilities in a strategically meaningful way—and in a way that leads to action—we have to think in terms of the marketplace. We have to use the language of customers. The activities-based view of capabilities talks about heat treating. But buyers of cam shafts shop for cam shafts, they don't shop for "world-class heat treating". The customer-based view talks not about what the producer does but about what the customer gets. This view talks about durability (heat treating hardens metals to increase their durability) not the activities that lead to durability.

Think about the best producers in an industry. Some are able to produce products for less cost than anyone else. Some are able to produce products or services with a higher level of performance than anyone else. If we think of the offerings of the best producers in an industry in terms of customer-oriented capabilities we create what has been called the Industry Frontier. At the top-end there are high-performance and high-cost offerings. Think of the finest crystal, the fastest cars, the sharpest knives. Producers at the bottom-end are just as impressive. But they excel on a different dimension. At the top-end the best-in-class performers say "for a given amount of money, what's the best performance you can achieve?" At the lower end of the Frontier producers ask "for a given level of performance, how inexpensively can you support it?" Together they create a frontier which reflects the lowest cost for a given level of performance or conversely the highest level of performance for a given level of costs.

Chart Two: Industry Frontier for the Piano Industry

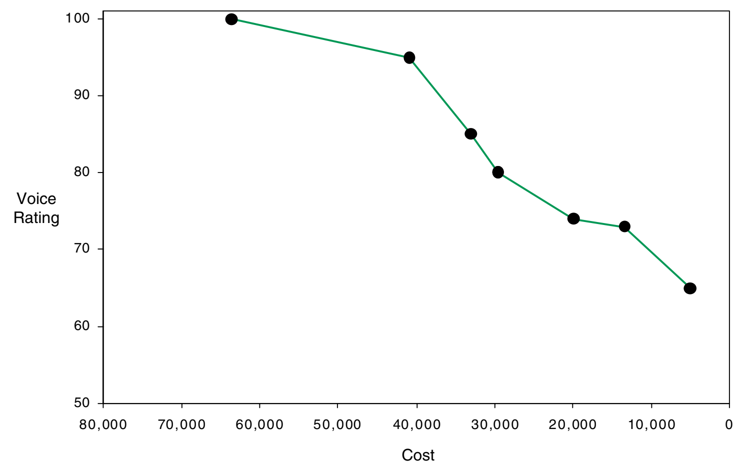
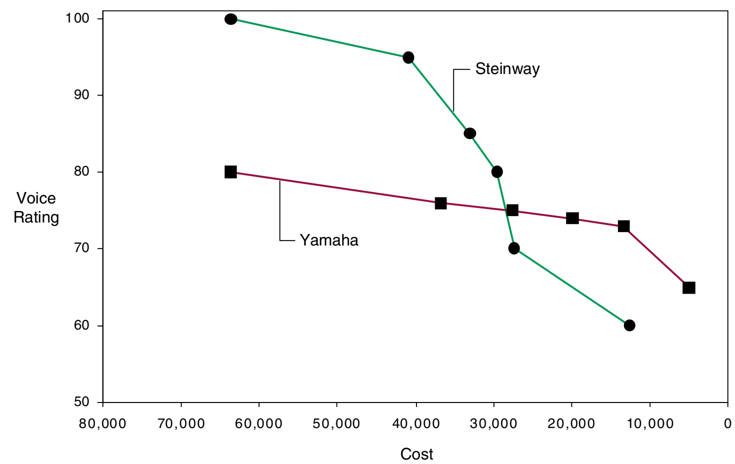


Chart Two shows a section of the Industry Frontier for the fine piano industry. The Industry Frontier is curved reflecting the intrinsic tradeoffs imposed by physics and the diminishing returns of economics. Big grand pianos cost more than small ones but have a better sound—described in terms of richness of voice here. Upright pianos cost less but further sacrifice sound quality. Big uprights have better sound but higher cost than small ones. Below a certain level of costs, performance drops off far more rapidly than costs. Similarly, there are levels of performance that can't be achieved regardless of costs. Buyers face a set of best-in-class offerings that embody these trade-offs. If they are performance-oriented they select offerings from the top of the Frontier. If they are particularly price-sensitive they are likely to select offerings from the lower end of the Frontier. (Although the frontier maps costs costs not prices.)

I use this example with executives because I can usually count on at least one former pianist in the crowd. I ask them to describe playing a Steinway and they invariably roll their eyes heavenward as they begin to wax eloquent on the joys of a Steinway. But building in that beauty costs money. This is why the Industry Frontier reflects the reality for buyers but it risks distorting the reality for managers. Managers of existing businesses do not face a set of choices that look like the Industry Frontier. Managers face a more constrained set of choices. It is a very rare instance where strategic position is literally conjured up from a blank sheet of paper. The choices of position for a given enterprise are far more constrained than the apparent choices of the industry as a whole. The simple unavoidable fact is that having brought together a set of assets and resources to produce a particular type of offering, companies will find themselves poorly suited to creating offerings at the other end of the industry spectrum. For Steinway historically the craftsmanship that enables the extraordinary performance at the top end has driven up production costs for all its pianos.

We can illustrate the set of potential offerings for a given company as what we call an Advantage Curve.

Chart Three: Advantage Curve for Steinway and Yamaha



Note: Data is historical and may not reflect current relative positions

Chart Three shows the Advantage Curves for Steinway and a leading Japanese competitor. Together they make up the Industry Frontier. Individually, each Advantage Curve represents a subset of all the possible offerings of an industry. The Advantage Curve is in effect the market relevant expression of a firm's capabilities. The Industry Frontier is the sum of the best-in class Advantage Curves. Customers, not surprisingly, have a wider set of options than firms.

And it is customers who determine the value of capabilities. For customers who focus heavily on the quality of the piano's sound, Steinway has a winning position at the top of Chart Two. For customers who care primarily about price, the lower cost Japanese producer has an advantage (at least in this simple two-competitor example). In the middle of the figure where capabilities are quite similar we have a "crowded space" where we expect the market to be quite competitive. For each producer there are potentially winning spaces, potentially disadvantaged spaces and a highly competitive space. This structure is common.

The fact that a company can not be all offerings to all customers does not mean they cannot earn a superior return. But there is a brutal fact in the competitive arena. To be advantaged, that is to earn a superior return, it is essential that a portion of a firm's advantage curve intersects the industry frontier.

Everybody intuitively understands the need to be on the cutting edge, but let's be specific about the dynamic as it plays out between competitors. If I have a popular offering, and am not on the frontier it means someone else can produce the same offering (in terms of price and performance) at a lower cost. That is the player who will earn the superior return. Conversely, if I am not on the frontier at the upper end of the chart than someone else is able to offer a superior level of performance at the same cost which means they can end my status as a winning offering.

It is not necessary that they imitate exactly what I have done. By being on the frontier, while I am not, they have the potential to either copy the attributes of my offering and outperform me or offer a superior offering and outperform me.

If winning offerings was the first rule of competitive advantage, this gives us our second rule. You must have Frontier Capabilities. Either you can do what others can do at less cost or you can do more than they can do for the same amount of money. There is no other path to competitive advantage. Players who do not have Frontier Capabilities may be advantaged over those with inferior capabilities but they will be outperformed by those on the frontier.

The competitive edge belongs to the player who has unique or distinctive capabilities. This means that that company can do things for less money than its rivals or can do something the that rivals simply cannot. By doing things, we don’t mean doing individual activities. It is not enough to be the best at one activity in the system, because those relative gains are more than likely to be offset by deficiencies elsewhere. As noted earlier capabilities rest on activities. Frontier Capabilities arise from the entire activity system. Steinway is unique not for one step in the process but from an interacting set of talented workers, outstanding materials, skilled marketing and product customization.

It may seem unfair but the pioneers who prove there is a new winning offering to be made often don’t get to keep that market. Xerox PARC saw the future of the personal computer but lost out competitively. Market insight is not enough. Unique insight must be coupled with unique capabilities to achieve competitive success.

Fit and Focus

One would hope that having winning offerings and frontier capabilities would be enough. Unfortunately, it is not. There is one more condition. To have low-cost frontier capabilities in a market that is buying on the basis of performance is clearly not a winning combination. But the problem of fit goes beyond this sort of square pegs and round holes problem. It is usually the case, that having frontier capabilities in one portion of the marketplace makes it likely that the firm will have off the frontier performance in another part of the marketplace. The trade-offs needed to be on the frontier are just that trade-offs and they bring with them inefficiencies when producing the offerings beyond those for which the advantage curve was really designed. This means that while above average returns are earned for offerings that are aligned with frontier capabilities, below average returns are earned on offerings where the firm is disadvantaged. This is how companies compete away the returns that derive from advantage position.

Let’s look back at Steinway. Their Advantage Curve shows that they are not just good at high-end pianos and average at low-end pianos. Historically, they have been very good at high-end pianos and because of this they are not average but high cost at low-end pianos. What puts them on the frontier at the high end pushes them off at the low end. This is the sort of thing that makes licensing very attractive for some segments of the market.

There are two solutions to this, both of them involve focus. The first is to focus the set of offerings. Resist the often irresistible and unprofitable temptation to be a full-line producer, not just because the return on those offerings won't be as good as the return on advantaged offerings, but because they will eliminate the returns from the advantaged offerings. As we've seen, competition plays out in two different ways, at one level it is taking place between offerings at the other the end the returns that derive from competition are playing out between advantage curves. The second way to achieve fit between offerings and capabilities is to focus the capabilities. If a company has one way of doing things, it has one advantage curve and one advantage curve with a full line set of offerings is likely to have the problems noted earlier. But the shape of the advantage curve is rooted in the activity system of the firm. It is possible for one firm to have two different activity systems and if they are distinctive enough, two different advantage curves. This is why we often see outstanding performance from focussed factories. Each factory has the ability to configure itself to have frontier capabilities over part of the range of offerings. In this way, firms can enjoy a competitive advantage over large ranges of the marketplace. Marriott corporation is a great example. Configuring buildings, organizational policies and incentives differently to serve different segments of the marketplace.

You Can Be All Things to All People You Just Can't Make Any Money At It

Let's see how this plays out in practice. One of the world's leading fiberglass plants produced for the exacting electronics market and the more price sensitive and less demanding auto market. They were the differentiated producer in the industry able to produce to standards many of their competitors wouldn't even attempt for the precision oriented electronics market. They had a winning offering in the high precision product. Customers paid a premium over the price of less exacting products and they had frontier capabilities at the high end of the market. But they made less money, than their foreign competitors who served only the auto market and that goes to the fit and focus discussion. They faced a common problem. They had frontier capabilities, but not across the entire frontier. Such industry dominance is rare. Although their capabilities applied to only one portion of the marketplace—electronics—they served the entire marketplace. This would have been all right if they could have collected their above average returns in their advantage part of the market and earned average returns in the remainder of the market. But the hard truth is that the very things which gave them frontier capabilities at the top end, such as their investment in new technology, their well-paid experienced work force, and state of the art control systems, added so much cost that it ensured that they were at a disadvantage at the low-end.

We have always had a hard time trying to convey to managers that strategy is not just what you say you will do, it is what you will not do. This has been said enough that it is a hackneyed aphorism that has even been immortalized in Dilbert cartoons. Yet it is hard for managers to grasp. The act of pushing your capabilities to the frontier in one part of the marketplace will drive you away from the frontier in another. That's why you can't be all things to all people, even with frontier capabilities. Or more accurately, you can be all things to all people. You just can't make any money at it.

Close, but No Profits

I'm reminded of the unhappy situation of a cigar manufacturer. We were drawing Advantage Curves for a variety of business when he suddenly sprang from his seat and cried "That's why we can't make any money in cigars!" We weren't even talking about cigars at the time but the Advantage Curve mapping we were drawing was similar to the situation he faced in cigars; better than some competitors everywhere but not on the Frontier anywhere. By looking beyond labels to the underlying structure we are able to get a far clearer picture of the competitive landscape and the actions we might take to impact it. If profits derive from your competitive position, you must be able to talk clearly and unambiguously about your competitive position to see what might effect your profits. Once he could see the structure, part of what he understood was that their past efforts did not address the structure adequately.

Managers need a more robust and articulated model of their competitive position and its link to profits. They had been talking about the cigar problem for a bunch of years, but not much that they had done had worked for them. The idea that one must drive a larger wedge than competitors do between buyer value and costs remains intact. There is no general consensus, however, that the widest wedge is likely to arise at one of two extremes, lowest cost or highest value. It may even arise in the dreaded "Stuck-In-The-Middle" area.

When is the Middle Sticky?

A familiar label in the lexicon of strategy is "Stuck-In-the-Middle." It's intended to connote the dangers of being neither the most differentiated nor the lowest cost producer. It has historically been something we warned managers against; a warning against the dangers of compromise. But a look at real markets reveals a multitude of businesses—hotels and restaurants spring to mind—where middle position players appear to be quite successful. This apparent contradiction is a false one. The problem is that we haven't been explicit enough in describing what we mean by a middle position.

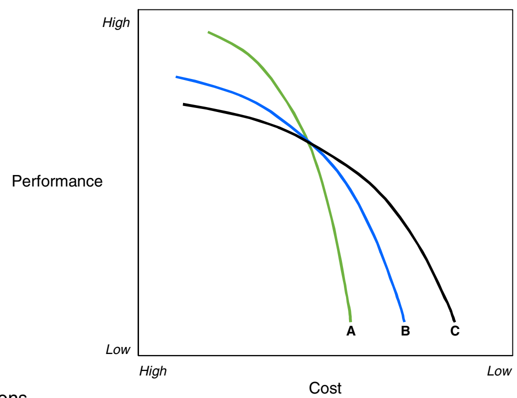
One middle position is to be in the middle of the pack in terms of offerings with a set of capabilities (an Advantage Curve) much like everyone else's. A group of players with similar capabilities is what we mean when we speak of competitive convergence. They may converge on a common offering or on a suite of offerings depending on the nature of customer preferences but the high degree of competition will be the same to both. Middle offerings in this marketplace can indeed be a dangerous competitive position. If customers buy based on performance or on price, the middle "compromise" offerings may indeed be uncompetitive. Action to be taken? Reposition offerings to align with customer preferences and seek to build differentiated capabilities.

A second middle position is shown in Chart Four, on the following page. It shows a firm with a middle position in terms of capabilities, not offerings. Competitor B outperforms C at the high end when it comes to performance (but falls short of

A). B also outperforms A at the low end when it comes to cost (but falls short of C). Like our cigar maker, Competitor B can point with pride to accomplishments but is structurally disadvantaged. B is jointly dominated by its competitors. Course of action? Forget about repositioning products. This poor producer has no space in which to offer winning offerings. The best it can do is the highly competitive crowded space in the middle. This company needs to shift its Advantage Curve if it ones to improve its returns. The critical question is which way?

Chart Four: Stuck-in-the-Middle / Jointly Dominated Capabilities

Sometimes 'Middle' positions reflect the unhappy situation where a competitor like B's capabilities are jointly dominated by others. B is least disadvantaged in the middle, with no area of potential advantage. "Better than C (but poorer than A)" at the high-end and "Cheaper than A (but more expensive than C)" at the low end, B is stuck in the middle between the two (think of Sears as boutique and discount stores emerged)



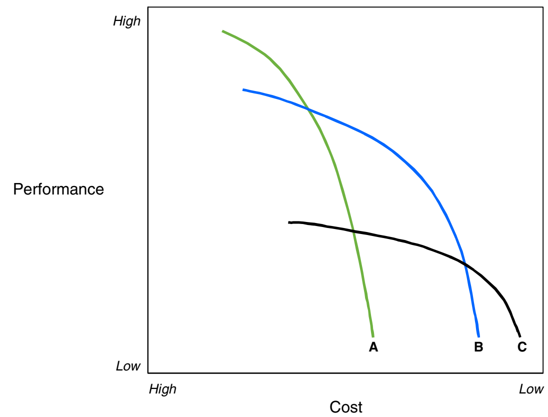
Action Options

- Forget about shifting offerings; you cannot win
- Shift curve: strategic question is which way?
- Redefine customer preferences around performance attributes where you are not dominated

Chart Five, on the following page, shows another middle position. But unlike the last example this middle player may have an advantaged middle position. B has frontier capabilities. In this example B may well be advantaged if there are buyers who trade-off price and performance. Action? If consumers make the right tradeoff then B may already be advantaged (assuming their offerings align with this advantaged space). Action to enhance position for this competitor calls for pushing to bow the middle capabilities out even further, making the tradeoff even more attractive to customers and/or persuade more customers that they should be trading off performance and price.

Chart Five: 'Win-in-the-Middle' / Advantaged Capabilities

However, if B is not jointly dominated, middle positions may be advantaged if buyers value both price and performance. There are many examples of 'win-in-the-middle' firms (think of the hotel industry)



Action Options

- Defend / enhance advantage (push the curve out)
- Manage customer preferences to look at both performance and price

A Guide to Action

As the "Stuck-In-The-Middle" example illustrates, a clearer and more unambiguous definition leads to a direction for action. Pity the CEO sitting in his office meeting with his top officers. The marketing guy wants to invest to "strengthen the brand", the head of manufacturing wants to invest in a new plant and has data that shows a five year payback, the head of R&D wants to invest in developing two new products The question for the CEO is how will any of these investments alter my competitive position (if at all). Our framework shows four classes of actions which can change your competitive position….

The Geometry of Competition: A Guide to Action

1. Changing the offerings or as executives familiar with this framework tend to say "moving the dot" is one lever a manager can pull to change competitive position. For many firms it is the fastest type of action to take. If the firm has frontier capabilities but has not aligned its offerings with those capabilities, this approach can bring significant gains. Alternatively, if it a firm has capabilities similar to its competitors but perceives a new offering that would better satisfy customers, a move to a new offering may bring only short term benefits. With common capabilities competitors are likely to quickly imitate the new offering and compete away the benefits of that new position (unless of course there are lasting first-mover advantages).

We should recognize, however, that the introduction of new offerings is a normal part of the business process. The true competitive dynamic does not take the current offerings or current capabilities as static. Offerings over time may follow a particular vector. Computers become more powerful with each generation. At one level, then, introducing a new more powerful computer may not be changing the competitive dynamic. It may be necessary to simply keep up with the dynamic. Firms need to be very clear about when their actions represent a break from the industry trajectory or not. If the entire industry is building capabilities and introducing improved offerings over time, the relative competitive position may not be changing at all. The Advantage Curves and the offerings on them may be moving relative to cost and performance. But they may be frozen in place relative to each other. In this world consumers benefit but the competitive dynamic remains unchanged.

Finally, we would look at the important question "when does a new offering require new capabilities?" All too often we see long range product plans that do recognize that they are implicitly assuming significant change in existing capabilities. At the most simplistic level, dropping price will make offerings more attractive to customers. But while easy to implement and likely to lead to winning offerings, it will not lead to competitive advantage and the superior financial returns associated with it, without the fit and accompanying frontier capabilities discussed earlier.

2. Creating new capabilities, or moving the Curve, is a different way to change the competitive landscape. Recall that this approach requires changes in the activities and assets of the firm. The first question must therefore be: "If we're to move the Curve what changes must we make in the way we perform our business processes today?" As noted earlier we must also be clear whether we are moving the Curve to keep up with industry capability improvement or to change our relative capability position. Both are important. Failing to do the former builds disadvantage. Doing the latter can help to build advantage.

This framework also lets us address some critical questions and risks associated with changing capabilities. If a manager suggests we build capabilities in an area where we are weak, we must ask 'will we compromise our capabilities where we are strong?' To shift a firm's advantage curve, it must reconfigure the activities and processes of the organization. It is essential that decision makers have a clear understanding of how the firm is trying to change its Advantage Curve as a guide to changing its activities. (See below, SIDEBAR: When Tactics are Strategic). Is the firm attempting to shift is curve to the right implying no change in the performance attributes of offerings, but a reduced cost? Alternatively is the firm shifting the bottom end of its Advantage Curve to the right while lowering the top end, in effect, rotating the curve? Rotation gives up the ability to achieve very high levels of offering performance in order to reduce cost on a lower performing offering. In some industries, particularly high tech industries, the advantage curve is continually moving upward…producing more and more performance for a given level of cost. If the pursuit of lower costs leads to rotation in these industries it can be fatal.

3. Influencing customer preferences: If a firm has frontier capabilities and offerings aligned with those capabilities, but finds those offerings are not winners with customers, or not with enough customers, the company may try to shift customer preferences. In this mode, they are not changing the offerings that customers face, but are trying to change the way customers select from those offerings. Clarity around this point, can help to ensure effective marketing decisions. Of course, no amount of effort to change customer preferences can fix a truly disadvantaged competitive position.

One important area in which marketing activities play an important role is in defining new offerings. But much of what marketing does —advertising messages, for example—are not involved with new offerings. How do we think about the strategic impact of those efforts? One way to frame them is in terms of attempts to modify customer preference functions. Managers should not take customer preferences as an exogenous given fact. They can be changed.

Change in customer preferences can take a number of forms, each with its own challenges and implications. We might seek to enhance the acuity of customer preference so that they are better able to recognize our advantage. We might try to shift customers in one segment to another whose preference function values our offering more highly. We might try to truncate their preference function to eliminate a competitor's offering from consideration (e.g., of course you have to have four wheel drive…). We might try to change a segment's function's slope to change the way they trade off performance and price. We might try to create a whole new segment with a new preference function. It is not my intention to catalog all the possible approaches. Rather it is to show that this framework can help structure a rich discussion of options and link them readily to their strategic implications and a definition of success for planned actions.

4. Changing the dimensions of competition. "Find the white space." "Change the rules of the game." "Think out of the box." This is just some of the strategic advice that abounds today. Its proponents exhort managers to think not about today's position but about how to create new environments. The problem is that sitting down and "finding white space" turns out to be a very ill-defined task. We can use the clarity and precision of the geometry of competition to try to structure thinking about how to change the competitive dynamics.

For really redrawing the competitive space nothing beats changing the dimensions of competition. The strategy literature often focuses on those players like Federal Express who identify whole new dimensions to add to customer choice. What does our framework add to this discussion? First it makes it clear that this category should be explored. Beyond that, this framework pushes clients to go beyond "can I think of another dimension customers (might) care about?" It adds to that the analysis that says "if we introduce that dimension do I have or could I build capabilities that would let me have a distinct (uncrowded) position? What offering could exploit that capability? How would that offering look to various segments?"

Advisors often talk about finding the white space. In this framework, there are three different kinds of white space. Spaces where there is not a crowding of capabilities where you can push to the frontier. Spaces on the current map that are currently unoccupied (breakthrough levels of performance, for example). And finally, there is the white space created by introducing a new dimension of performance against which to map capabilities. The recognition that there is an unexploited dimension of performance potentially valued by customers creates an opportunity to redraw the industry frontier and stake out a frontier capability.

All four of these classes of action can dramatically affect a company's competitive position and the financial returns it enjoys, but they require different time frames, different levels of insight and commitment. They are not mutually exclusive. They are perhaps most powerful when they work together building new capabilities and offerings that exploit them simultaneously. For a firm, to successfully change the competitive landscape through one or more of these classes of action it is essential that managers have a clear understanding of today's competitive position, tomorrow's intended position, and the classes of action which can be pursued to make the shift.

It is not the intention of this article to reject past frameworks. Rather it is intended to take past strategic labels and push them to a more granular, and more actionable level. By making explicit the links between assets and activities and capabilities and offerings, by expressing capabilities in competitively relevant terms, by creating a clear and unambiguous common language, I believe we can raise our level of strategic thinking and discourse. In today's ever changing economy it may well be those that think and communicate most clearly that win.

SIDEBAR: **When Tactics are Strategic**

Strategists like to make a distinction between Strategy and Tactics or between actions that are Strategic and those that deal only with Operational Effectiveness. There are situations in which these are useful distinctions. The elimination of waste, for example, is an important business activity but it does not need to be linked to strategy. There is no pro-waste strategic position. But this distinction between strategy high-up in the organization and activities on the front line can be a dangerous one. The problem is that the cumulative impact of the choices and actions throughout the organization add up to a firm's set of capabilities at any point in time. Actions that effect those capabilities, that constrain or alter a firm's advantage curve, can unwittingly limit or enhance the strategic choices a firm faces in the future.

Let me give a concrete example. An American medical products company understood that it had a problem in the syringe business. A Japanese competitor was opening a plant in North America with a significant cost advantage. The advantage was quantified and the firm's strategy was to close the gap. They turned to managers throughout the organization to find ways to cut costs. One plant manager given the task of finding 15 cents on the dollar looked at his production line and saw an immediate way to save. The American company individually wrapped their syringes, the Japanese did not. Bulk packaging would save a good portion of the costs the manager needed to find. The problem of course was the manager was doing more than saving pennies he was changing the firm's position. A move to bulk packaging didn't represent a shifting of the firm's adv. curves to the right, it represented a rotation they would move from being on the frontier in terms of ease of use but at a higher cost to having a set of capabilities that simply copied the Japanese competitor at a higher cost. Roughly 75 percent of the cost gap would be closed, but the performance gap which benefited the American company would be eliminated. Fortunately, the plant manager's proposal was headed off before it was implemented. But it demonstrated the important interaction between today's activities and tomorrow's competitive advantage. When changes in activities alter the firms advantage curve they are by definition strategic.

SIDEBAR: Map Making for Managers—
Dealing with Multiple Dimensions of Performance

Many products have multiple dimensions of performance. This is a familiar problem in market research and techniques like conjoint analysis have been developed to address it. How should the geometry of competition cope with multiple dimensions?

- *Don't map everything*—Not all dimensions are created equal. Diagramming should be driven off of what is important to customers and dimensions along which competitors have made differing choices. The caveat to this is to be sure to ask the "what-if" question "What if I broke from the pack and chose a different position with regard to this attribute where we are all the same?"

- *Know the relevant strategic issues*—Choose those dimensions that appear to be relevant to the issues/potential choices and actions that face the firm. If the company is considering a next generation product that looks like today's but is more durable, for example, then durability is the key dimension.

- *Look at the structure of the map*—Are the offerings arrayed along a frontier or on a diagonal from the origin. Is that due to competitive choices or physics (i.e., does the map reflect physical trade-offs like weight vs. armored protection)? If it is a physical constraint we may be able to collapse two dimensions into one. Again a caveat applies; "Is there a way to beat that tradeoff?"

- *Understand the interaction of the maps/dimensions*—Is position in one map independent of offering positions chosen in other maps or do they interact for technical or customer reasons? If they are truly dependent on each other it may be possible to collapse them into a single map. If they are truly independent, we can make decisions in one arena without worrying about another.

- *Be creative*—The use of graphics should be liberating ("any point past this" rather than restrictive "if offerings are dots then you have to tell me where exactly to draw it"). Use color and symbols to make two dimensional diagrams three or four dimensional if you find this facilitates the raising and addressing of questions of strategic importance.

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SIDEBAR: Map Making for Managers, *continued.*

- *It's an interactive process*—"What are the dimensions we should work with" begins with in-house knowledge or past or preliminary market research. As we find that the trade-off between, say, freshness and price is important we may go back and ask "how many people make that trade-off? How do they make it?" The single dimension may expand "Is that freshness at the store or how long it lasts at home?" As a specific new offering is considered we might go to engineering or back to customers to understand interaction between dimensions. The trick is not to collect all the data and then draw all the maps. The challenge is to figure out what do we need to know to make the right strategic choices.

An Aggregated Approach: We have been looking at moving away from a completely disaggregated picture to a practical and workable set of dimensions and maps. What about attacking it from the other direction through complete aggregation? If we are going to attempt to winnow down the list of variables and thus maps in order to identify winning positions, it is tempting to combine a number of different performance metrics into a single overall performance rating. A number of companies have taken this approach producing a ranking of all offerings or a metric of the customer's "willingness to pay." This approach simplifies having to deal with multiple diagrams (or for the geometrically inclined—dealing with a hypercube) by summarizing everything into a single one or two-dimensional diagram. As appealing as this is, it may be a bad idea.

It is not just that detail is lost. In order to combine metrics like speed and mileage or freshness and variety some sort of weighting scheme must be used; you can't add miles per hour to miles per gallon or days to donuts. This is often done by assessing a dollarized value or a dollar measure of "willingness to pay" to each attribute and then summing them. The problem is that different groups of customers would weigh the performance attributes differently. Collapsing multi-dimensional performance into a single index makes it impossible for us to evaluate the strength of competitive positions from different segment points-of-view later on. It limits our "what-if" capability and obscures the relationship between performance dimensions.

There are times when this one-map-per-segment approach is unavoidable. When the metrics themselves are subjective—reputation, for example—and perceived differently by different groups. The integrative challenge then shifts from multiple performance maps to thinking about how a single offering will be positioned on each segment's map.

