

CHAPTER 10

DIFFERENTIATION

Business is all about differentiation. If I'm a janitorial service, I'm different cause I'm closer, faster, work nights or some other time. If I'm a restaurant, I'm the only Mexican Asian Fusion spot in town, or have the best looking waitresses, or the best bands, or free drinks on Friday nights, or whatever. And if I'm a high-tech company, I have the fastest chips ever, or the only chips that let you build a high definition TV with only one part, or that come with special software that reads your mind and turns themselves into just the chips you need, and so on.

If you fail the differentiation test by not having a good answer to these questions, then there is only one differentiation point you can make: you're the cheapest. How does that feel? I sense a groan emanating from the depths of your gross margins, so let's go back a couple of steps.

Markets where the differentiation has disappeared are commodity markets. Avoid that like the black death. Your job is to find ways to differentiate yourself in the market. In a high-tech company the most obvious way to do that is by product differentiation.

It is actually difficult for marketing to create product differentiation. Oh, it happens, but usually marketing takes the role of communicating that differentiation to the market. What marketing *can* and *should do* is to communicate to the company, usually engineering and manufacturing, the directions of differentiation that customers would value and pay for. Chips for instance, come fast and slow, high power and low power, simple

Markets with no differentiation are commodity markets.

***The best approach
to differentiation
is to combine
product
differentiation
points with
company
differentiation
points.***

and complex. Those are points of differentiation that customers relate to. Whether they're black or blue however is not. You can choose to be the only company in the world making blue chips, but no one will give a hoot. More importantly, they won't pay you a penny more for blue chips. The marketing job is to make sure engineering and manufacturing are not spending energy trying to make blue chips, but instead are working 24 hours a day on things that do matter.

You should always be looking for more than one way to differentiate yourself. The products, for instance, might promise the highest speed *and* the smallest size, two points of differentiation. Apple is known for both simple, easy to use products *and* dazzling product appearance and design. I've always felt the best approach to differentiation was to combine product differentiation points with company differentiation points.

The whole object of differentiation is to have stronger appeal to customers searching for the attributes you've chosen to differentiate. That may make you the only viable choice for that customer, or the preferred choice among several. Presumably that allows you to command higher prices as well. By combining differentiation points you can compound that premium. For instance, if your parts are the highest performance in the market, having the company be recognized as the highest quality supplier at the same time would be a natural way to reinforce the sense of high-performance.

Differentiation is the basis of positioning

In a few minutes, we'll be talking about the next marketing theme, positioning. It's the art of establishing the company or product in the minds of the customers as the best in some category. That category is the point of differentiation you've built into the product and company. Most companies have more than one product and some have more than one division. It is crucial that the differentiation points be consistent across the company. For instance, it's hard to have one chip be the fastest, highest performance and the next one be low performance, but really inexpensive. By having both of those chips in your lineup, it forces you to position yourself, not as the fastest or the cheapest, but as the company with the broadest product line offering one-stop shopping, and that can be a very hard position to achieve and maintain. Much better to specialize in high-performance (or low cost) and not try to mix.

Differentiate or die

Imagine yourself as the customer trying to make his system run faster, and saying to himself, "A faster system can only come from faster

chips. Who makes the fastest chips? HA!!! Acme chip company, of course.” That’s what you’re striving for. To be able to compete on the basis of some recognizable difference rather than simply price. If you cannot do that, then price is all that’s left to you. And price only works, temporarily, if you’re the lowest cost producer in your industry. That can be very hard to maintain, and if you think about it, you’ll probably have a hard time even remembering what company was the lowest priced supplier five years ago. It’s hard to remember because they’ve gone out of business.

Differentiation reduces the number of viable competitors in the customer’s mind, and anything that reduces competition tends to raise your gross margins. Marketing’s role in all of this is to work the company top to bottom driving an understanding of what differentiation points the customers want and value, and just how much they would pay for those parts. Looking at the market through the eyes of the differentiator means both looking at customers and competitors, because the competitors are doing the same thing. It would be pointless to differentiate the company in a way that was already being done by a strong competitor.

Differentiating on quality, on parts numbers and order entry, on delivery, on sales channel, etc.

That brings us to some of the more interesting ways to gain advantages through differentiation. Here’s one: the way the order entry system handles part numbers! AMD did extremely well with that. When Jerry Sanders founded AMD, he had recently left Fairchild with a bitter taste in his mouth. So he decided to initially aim AMD at taking sales away from the Fairchild product line.

In those days, order entry systems were run by what would later become IT, the computer department. Except the computer department drove the process in many ways. The parts numbering system for instance, had to be something that fit their programs well. Not something that might sell well, but something that had the right combination of alpha- numerics to work in their programs.

Part numbers tend to be very complicated with all sorts of codes built into them that set temperature range, industrial vs. military grades, speeds, packages, and so on. Every company’s product numbering system is different, and what was basically the same part made by six different companies would have six widely differing part numbers. As a result, six marketing departments were kept busy creating and publishing cross-reference charts for customers and sales people.

Differentiation reduces the number of viable competitors in the customer’s mind, and anything that reduces competition tends to raise your gross margins.

Sanders had a spectacular twist on parts numbering systems when he started AMD.

What was lost in all of this was the effect it had on the customer. Customer purchasing departments had to analyze the part numbers and create lists of compatible parts, and that process was duplicated at every customer. That meant that every company trying to sell parts compatible with original Fairchild chips had to convince customer purchasing departments to invest the effort and time to analyze the part numbers and convince themselves they were truly compatible. In many cases, the customers had to actually get samples and test them to ensure total compatibility.

Sanders had a spectacular twist on this when he started AMD. Since he was building a company from scratch, he simply told the computer department to build him an order entry system that would accept any part number whatsoever. He wanted to be able to enter in anyone's part numbers and let the computer do an internal lookup that determined what the real AMD part was. As a result he was able to have his sales force go to the customers and tell them to just give them the Fairchild orders *without* part number changes.

AMD would accept orders with the Fairchild part numbers and guarantee the compatibility taking the burden off the customer. It also allowed customer purchasing agents to circumvent the qualification process. After all, they had a requirement for a 741AXbQQQ (Fairchild part number) and that's exactly what they were ordering from AMD. Don't underestimate the power of this. Sanders had created a tremendous advantage by the simple statement that AMD would take Fairchild part numbers directly and ship against them.

While we're on the subject of AMD, Jerry had another advantage, involving quality. I see lists of "advantages" all the time and most of them list quality. *What* quality?? *What* type? *Where*? *How* is it to be achieved? People are not stupid. No one sets out to build bad stuff, so when the CEO announces they will have better quality than the competitors, exactly what does he know that they didn't? *How* is this quality to be achieved? *What* are the costs? *What* is the plan?

AMD had a quality plan.

In those days, a lot of the revenue, and even more of the profit in semiconductors was in selling chips to the military. Basically these were identical to consumer chips but were in special packages and had a lot of extra inspections and testing built in. Most of those tests were straightforward and the chip companies were happy to comply, run the tests and charge the military customer accordingly.

One part, however, was the subject of a constant battle, the optical inspection of the die. The military purchased their chips to a set of NASA specifications and among those was a notorious document that established what the acceptable criteria was when doing an optical inspection of the chip before assembling it into a package. This was a lengthy document that spelled out exactly what was acceptable in terms of the various lines and structures on the chip, as seen through a microscope. Chips sold into the consumer or industrial markets were not inspected in this way at all. The exact same chip, to be sold to the military had to undergo this visual inspection under the microscope and be judged by that NASA document.

The NASA spec spelled out two levels of visual inspection the chip companies had to do. The A level was for the most mission-critical parts. B level was somewhat relaxed and easier to meet. The premium charged for doing these inspections was huge because they were hard to do and hard to meet. In fact, the chip companies refused to do them totally. Each took exceptions to various clauses in the B level spec, meaning they accepted the B-spec but with some exceptions that spelled out relaxations to certain of the clauses and requirements. And they simply refused to do level A saying it could not realistically be met.

Why was this done? First, it was the norm. The QA and engineering groups at the chip companies had always taken exceptions to these types of specs. If they didn't like the spec, they simply demanded exceptions. And the company marketing departments went along. To be fair, there was some rationale to all of this. The semiconductor companies basically disagreed with the NASA approach to trying to "inspect in" quality into chips.

No one was ever able to prove that a chip that passed the inspection process was more reliable than one that did not. IBM had a different approach. They used consumer quality chips in high volume but drove the quality process differently, and I always believed in my heart that the chips shipped to IBM were more reliable and higher quality than the chips shipped to the military costing 50 times more.

But again, think about what this did to the customer's purchasing department. Every military purchase order had to go through a lengthy negotiation revolving around the NASA spec. The chip companies refused to accept the complete, unmodified specification. The customer's end customer, on the other hand, was demanding total compliance. The customer was caught in the middle and was very unhappy about it. As long as all the chip companies refused to accept the unmodified NASA

spec, it didn't matter. The customers were forced to go through the negotiations, to bring in their QA departments and go through the spec line by line, page by page, sometimes for days.

Enter AMD.

Jerry Sanders stood up and announced he would accept the B level visual spec with *no exceptions*. Later he did the same thing for level A. The effect was immediate and electric. Suddenly customers trying to purchase military parts could simply place their orders with AMD and skip the spec negotiations. No QA department, no having to go back to the end customer for relaxations, just place the order, using the original Fairchild part numbers and specifying the NASA quality level desired, and AMD accepted the order with no exceptions.

Of course there was a price. Military parts like this, even with the relaxed visual specs demanded by the other chip companies, were expensive. AMD was able to command premium prices for shipping parts with no spec exceptions. And, even at higher prices, that saved the customer a *lot* of money, plus eliminated all the grief of having to go back to the end customer looking for relaxations.

Just like they had created an advantage by using the parts numbering system, AMD had created an advantage in the military market by offering what the customers viewed as "higher quality" parts. After all, if AMD didn't need relaxations to the NASA specs, the parts must be better, right? That image of AMD as the higher quality supplier spilled over to its other non-military sales and allowed AMD to command premium prices.

In both of these cases, Sanders was able to find an advantage for AMD that his competitors did not and he was able to defend those advantages. It took months and months *after* competitors realized what was happening to build new order entry systems that would accept any type and format part number. As for the NASA visual inspections, because AMD was a new company, they had new wafer fabs. Their equipment was newer and better and they could build wafers that met those visual specs. The competitors with older fabs and equipment struggled to do that.

***The customers
wanted to believe
this was all true.***

One final point. The customers *wanted* to believe this was all true. They *wanted* to believe that if AMD took an order using the original Fairchild part number, the parts were identical and did not have to be evaluated for

compatibility. There was no real reason for that to be true, but customers wanted it to be true because it made their life so much simpler.

The military spec situation was even more extreme. The relief that simply agreeing to meet the visual spec with no exceptions made to the customers was tremendous. If you looked closely at the AMD procedures, they were not quite as spelled out, but the customers loved the statement that AMD accepted the specs with no exceptions and didn't want to look too closely at the procedures used to implement them. Creating an advantage that the customers *want* to believe in is World Series marketing.

The Signetics Quality Program is an example of actually doing something to put the quality bullet on the list of company advantages as opposed to “empty promise bullets.” When the CEO, Chuck Harwood, listed his objectives, he included one on quality. In the Signetics system, that meant each of Harwood's direct reports had to include goals and objectives in their own list that implemented the ones on Harwood's list. The direct reports were encouraged to add their own goals and objectives too, but as part of their list they had to expand on Harwood's. This went all the way down the line to the lowest manager.

This time, Harwood did not just indicate he wanted to raise the quality of Signetics' products — he went further and implemented a complete quality program by subscribing to a commercial program put together by Phil Crosby called “Quality is Free.” Crosby's basic idea was that in the long run, it was far cheaper to fix a faulty system than to just fix the faulty parts it created through additional inspections. But it went further into every aspect of the company. People were encouraged to look at every job as one that should be improved to eliminate all “rejects.” The top-level managers attended Crosby's Quality College for a week, the lower managers read his book.

Crosby's approach was very similar to the Japanese approach to manufacturing. The idea that when errors occurred, it was the system that had to be fixed to prevent them from recurring was very strong. At Signetics, the Crosby program was applied to everything from manufacturing to writing reports and finding typos, to sales forecasts that were inaccurate. As a consultant, I was an outsider during this process, but I was fascinated by what was going on. Building quality into products in this way seemed to me to be a very powerful approach, but I was skeptical about trying to change forecasts in this way.

The goal was to bring value to the products by increasing quality, and get paid for it.

Not that forecasts didn't need improving, but forecasts are essentially guesses about customer demands. The customers themselves don't really know what their demand will be – they're guessing too – and there are a lot of reasons why they purposely misstate their intentions. Building a forecast system that perfectly relays the customers' stated demands into the sales forecast seemed to me to be hopelessly naïve.

In the end, most of the Signetics efforts at improving the quality of day-to-day activities like forecasting were forgotten. But the obsession with building better chips with fewer and fewer rejects along the way continued. Years later, sitting on a plane, I overheard two buyers talking, "Those Signetics parts are a little more expensive, but the quality is so good they're worth it." I never had a chance to pass that on to Harwood, and it's too bad because after all, that was the goal. To bring value to the products by increasing quality, and *get paid for it*.

Bundling

The concept of bundling has been around forever. If your product is similar to someone else's, and you find yourself losing sales to them, then bundle it up with some other product or service they can't offer and sell the bundle at an attractive price. If the thing that was added is normally part of the customer's total purchase, then being able to buy it installed, from you, or guaranteeing it to be compatible with the first product, is a significant value to him. And if he takes advantage of your bundled proposition, that effectively eliminates the competition.

Bundling has certainly been abused. In a landmark court decision, IBM was forced to unbundle its hardware and software. Prior to that, IBM was raising the price to its customers by forcing them to buy software already installed on the computer, thus raising the size of the transaction and locking out after-market software vendors who were offering similar programs.

Pretty much anything can be bundled to the benefit of company and customer alike. Frequently service contracts are bundled with the initial hardware purchase. A year or two of updates are bundled with the software program. Even credit cards are susceptible to the bundling phenomena. If all credit cards are basically alike, then differentiate by adding services to them like travel planning, airplane bookings, hotel upgrades, and so on.

In the semiconductor world, the most common form of bundling is simply grouping parts together that are needed by the customer for his application. If the microprocessor always has to be used with a couple of accompanying chips, then sell them as a single group at a “discount.” This makes life simpler for the customer both in the ordering and tracking process, but more importantly, it insures him that parts will always arrive in “mix” — that is, in the right combination to use rather than all the microprocessors first and then a month later, the accompanying chips. Getting out of mix is expensive to a customer because it locks up his inventory of raw parts — he must pay for the microprocessors that arrived first but can’t really use them until the tardy other parts show up.

For bundling to work, it always has to offer value to the customer. Too many times the added elements of the bundle have no perceived value to the customer, and gets in the way of the customer’s ability to make simple evaluations of its worth. If you always use an online reservation service for booking airline flights, does adding that service to the credit card bundle really add value for you?

From the customer’s perspective, the bundle has to represent added value. For the supplier however, the idea of bundling is to increase sales and margins. If the customers usually purchase four different chips to be used together in their designs, the company would have to compete on each of those individually, and might win or lose each. It may very well be that, although each of the four chips is also made by one or more competitors, no competitor offers all four. By offering a bundled package of all four, the company provides value to the customer by always shipping in mix, but eliminates the competition since no one else can bid for all four chips. The customer may still go to all the competitors and engage in round after round of “grind you down” price negotiations, but the bundled package of the four will probably sell for more than the total of the individual “grind you down” prices. Of course the customer may still choose to buy individually, if he feels the cost savings more than offsets the time saved and the insurance of keeping his inventory in mix.

When the bundle really comes into its own is when one or more of the parts are proprietary. We have already described how semiconductor chips came to be second-sourced by other manufacturers, but most companies have a mix of proprietary and second-source products. In many cases the proprietary versions were just high-performance grades of the generic second-source, commodity part, and in such cases, if the opportunity was there the competition could produce the same parts relatively easily. In others, the proprietary chip was a unique function

For bundling to work, it always has to offer value to the customer.

and design that simply had no second-source equivalent from the competitors — it was really proprietary, and it would be very difficult for a competitor to quickly duplicate it. Obviously, getting one of these proprietary chips into a customer’s design gave the company a huge advantage over the competitors. As the sole-supplier, the company would enjoy the sales of that single part, but the real benefit was when it was added to the bundle.

Ed Gelbach, Intel’s vice president of sales and marketing, used to say, “Just get me one proprietary chip in a box and I’ll own it.” Intel drove the concept of bundling every chance it got. The idea was to “package out the competitors” and they usually succeeded. Of course the customers knew that having proprietary chips embedded in their designs was to their disadvantage and they strongly resisted Intel’s efforts to do it.

Intel was able to do this for several reasons. First, Intel was a trusted supplier. Everything they did, right down to the company motto — “we deliver” — reinforced the belief that Intel would not let the customer down. They would never have refused shipments of a proprietary part to a customer that was buying the microprocessors from a competitor. But Intel felt strongly they wanted to be the dominant supplier to each customer. As such, they would be involved in key aspects of the design and would have a chance to influence things to their benefit. Other suppliers with no voice in the design would end up being the victims in the process. As a result, Intel ended up with a more profitable application (for them).

The other reason Intel could get those proprietary chips into the customer design is because they really did make life simpler for the customer designers. They solved difficult problems, eliminated many other parts, made the designs simpler, more elegant, and easier to migrate to newer, more advanced applications over time. In the eyes of the customer, it was worth it.