

In Search Of The Mythical Business Case

by Kevin Parmenter, Semiconductor Industry Veteran

When I first started in the electronics industry, in the 80s, companies were mostly run by passionate founders and/or engineers. It makes sense that technology companies selling to technology companies would want to have something in common—engineering management or product evangelists—and it worked well for the most part.

As a field application engineer (FAE) at a semiconductor company, if I or my team of engineers needed something for a customer or if a new part was released, we could call the marketing department. In the marketing department, there were other engineers doing marketing.

These marketing engineers were almost always individuals who had been designers at a customer's company. Thus, they knew what other customers were looking for and could discuss the tradeoffs and customer applications quickly on the phone. They had a phone and a pad of paper on their desk. And if they were really advanced their department would have a fax machine. That was it.

One day this unnamed semiconductor company hired an outside consulting group who did an analysis of what this company could do better. The report summary was "you have too many engineers who give you a tunnel-focus point of view, you need to hire professional marketing managers." Management heeded this advice and staffed up the marketing department accordingly.

Sometime after that, I called marketing about a customer who needed an op amp with certain specifications for drift, input current and so forth from -40°C to +85°C for a new ring laser gyro design. These specs were critical to the performance of their product.

I passed along these requirements to the new "marketing person" (MP) and asked what he thought. There was a long pause as I waited for a response—a pause that told me that the other person had no idea what I was talking about. Then the conversation resumed as follows:

MP: "How many other customers in your territory that make ring laser gyros need the same thing? I need a business case!"

Me: "Well, my customer has about 85% market share and there are two other companies on earth that make these devices." I politely redirected the conversation and asked, "Hey Larry you're new, aren't you?"

MP: "Why yes, I am the op-amp marketing manager for about a month now."

Me: "OK that's interesting. What did you do before coming to work at [our unnamed semiconductor company]?"

MP: "Well, I was the marketing manager for Huggies diapers at P&G."

Me: "Larry, that's certainly impressive. How does that work anyway? How do you get people to choose Huggies vs the alternatives?"

MP: "Well," he said proudly, "the color of the packaging, working with the stores to get position at eye level on the grocery store shelves, Sunday newspaper coupons and ads, and so forth."

I immediately wondered how his experience in marketing diapers translated to supporting electronics engineers at companies with new designs? But knowing the conversation could not go much further, I thanked Larry for his time, told him I didn't need anything right now, but I would call in the future when I ran into other situations.

Although marketing was changing, I had some recourse in this case as upper management was still accessible. This was a time when you could not help bumping into a visionary leader (an endangered species now) in the halls because they had a habit of doing "management by walking around". (Very few do this today, as most are sequestered in their offices playing with every known feature of Microsoft Office Suite.) Or at that time, you could still pick up the phone and talk to management. That's what I did in this case. I called, asked for the second in command and recounted my conversation with marketing.

As I explained to the manager, the new guy wasn't a bad person, it's just that he should not be anywhere near a semiconductor company selling precision devices. I also asked what would happen if I went into a consumer products company and said I wanted to market diapers? The big brands would never accept me because I have no experience in consumer marketing or sales. But in the semiconductor industry all it took were some highly paid wingnuts at a consulting company to hire marketing people without industry experience.

Fortunately, at that time the top person understood and re-organized it so that Mr. Huggies diapers was reassigned to ponder what color scheme we needed for the new data books or print advertising. (I've since learned that there are many forms of marketing specialists. Unfortunately, Mr. Huggies was a brand marketer, while the role he was meant to fill was that of a technical marketer.)

One of the reasons I recall my conversation with the diaper guy so vividly was that it was the first time I ever heard, "I need a business case". At the time, it was such an unexpected response I might have thought he meant the thing I carried papers, parts and circuit boards in! I was an engineer who had just been hired into the semiconductor industry to provide technical support in the field to customers—the new FAE role. After that first encounter with Mr. Huggies, I started to hear the "I need a business case" mantra more and more in meetings at HQ, as well as on conference calls and regional meetings.

I quickly learned that if you had an idea for the next 555 timer, 741 op amp, FPGA, or microcontroller you probably were not going to get your idea through the gauntlet of MBAs who were unincumbered with technical knowledge or design experience. Though they had formal business training in some cases, these individuals couldn't talk to customers about the technical products which are used in the customers' technical products. They simply hid behind the magical words "business case".

I was so curious about this new term that I decided to have my company pay for me to go to business school. I wanted to find out how things worked now and how to get things done. At the very least I wanted to learn how to talk to these marketing people and ask them what their business case looked like. But as I learned, going to business school didn't solve the mystery behind the "business case".

That was maybe 30-something years ago. I don't recall any time since then actually having someone in marketing being so proud and happy about their business case or any other business case when I asked "what's the need we are filling with "such and such" product? Usually, the response was a blank stare. I would continue by asking "what are the features and benefits of this product?" Again, just blank stares from marketing.

Occasionally I might hear "So and so (one of the top customers on earth)" loves it. Well, OK who at "so and so"? The guy who waters the plants in the lobby? The receptionist? Usually, more blank stares would follow.

So what I learned is that, many times, the "business case" is simply marketing's reaction to a huge customer telling us and 50 other semiconductor companies what they want. They're hoping someone will make it as a standard product so that they don't have to pay any NRE (non recurring engineering). In other words, if a customer really knows what it's doing, it can manipulate the semiconductor suppliers into doing free work by dangling the carrot of big potential business in the future.

This is marketing saying, "I need one customer that I care about to tell me what to do so then I can do it." Looked at another way, the business case is a CYA in case someone ever calls marketing on the carpet. We did it for "so and so" and we are working with them on their next new products—keep on that mouse wheel. In the end, the marketing people do what they want to do and the FAE organization isn't to be trusted with product planning.

With this type of process, you won't get the next FPGA, microcontroller, 555 timer or what have you unless it's by accident.

Now wait a second, would it not be better if 30 customers who didn't talk to one another, told you that they need pretty much the same device? That would be a better bet than one giant no-NRE-paying company. Or, in the case where one customer has the lion's share of the market as in the story of the ring laser gyro, consider requiring either NRE charges or commitments on some minimum order quantity before greenlighting the project.

But all that would be too logical. In corporate America these days, if something doesn't work or make any sense, double down on it. The process will take care of everything—all hail the process. So, if you the semiconductor FAE do get an idea for one part that many could use, you better keep it to yourself.

I'm reminded of the time when LED lighting was just taking off. Our FAE team was hearing from almost every customer we visited about the need for parts to drive the LEDs. I asked marketing if we could work with them to define some parts for customers.

The first response was "there is no market for LEDs." I asked why they thought that. Well, they replied, there were no market reports they could buy on LEDs. There were only reports on computers, set top boxes and cell phones, and automotive applications—the usual established markets. I responded that by the time you can buy a marketing report, it's going to be too late.

After months and months of repeatedly asking about LED drivers and getting rebuffed, I was desperate to get a part. So I offered this proposal: what if you give our FAE team a slot and we will define a part? If you do this and it's not successful, then you can blame us and I will never ask you again to listen to us.

Surprisingly, they agreed. They gave us a slot. We defined and designed a part. And it was hugely successful.

But to my knowledge we never repeated that process again and I could not say why. Although the part that we developed was a success, the results were not what they could have been. In the time it took to get the green light from marketing, we lost a year or two letting our competitors gain early access to the LED driver market, and gaining market share that could have been ours. As expected, there were plenty of marketing reports to be had once there were multiple companies already selling LED drivers. (Marketing reports have indeed become a cottage industry. And much can be said about the value (or lack there of) of these reports. But that is a topic for another article.)

Another time we had a VP of our Analog group who had come from a two terminal-passive device company. He was struggling with the question, "do I make parts for customers in the automotive market or do I make general-purpose devices?" I suggested that the FAE team would help define parts that we could design into both markets. After all, how does the part know where it is?

But our VP never took me up on my offer. In this instance, it wasn't so much about the business case, but rather the perceived lack of information. For management, if you don't know what you are doing there is never enough data to make a decision. So after "I need a business case," the second hide-behind for marketing is "I need more data".

The payoff for that one is that it makes you look like you are smart and cautious—nobody ever got fired for needing more data. And now you have turned everyone in the company into your personal, data-generating servants.

But what if by chance you are so passionate about what your customers want that you do generate a business case and plead to management to get the marketing person more resources (i.e. data)? Well, in that situation, marketing has cleverly manipulated you into doing their work for them and they didn't have to ask the boss for more resources. So, they can keep playing with spreadsheets and PowerPoint or whatever they do.

And if what you want gets done, marketing will take credit for your "business case". On the other hand, if the project isn't successful—probably not because of something you did—you will be blamed. "We can't trust those technical applications people. They are not strategic enough."

This isn't real marketing.

If you want to test to see if your marketing department knows what they are doing, here's a way. The next time they propose a new product ask to see the mythical business case that they have to have before doing anything. If you do get to see one—and I never have—make sure it outlines the need the new product is filling and its advantages vs. the alternative options. Also ask what support there will be for design-in and sales at the product's release.

If you get a blank stare or some made up-on-the-spot nonsense in reply to any of your questions, then assume that their proposed product is just driven by the request of one big customer. To marketing, that customer appears to represent "no risk," when in fact what they are asking is very risky.

When the plan falls apart, marketing may come back to you asking you to bail them out. I can't tell you how many times a marketing department has asked me "can your team find homes for this new product (or family of products)?" The exchange may have gone something like this:

Me: "This device looks like it's for laptop power management."

MP: "Yes, what other laptop makers do you have that might use this?"

Me "Why do you ask?"

MP: ""So and so' decided they can't use it—we missed the marketing window."

Me: "Yeah, I will find those other laptop companies in North America—they are probably in the same industrial park as the plethora of ring laser gyro companies. Next time, how about you let the FAE team define some new products for you?"

MP: "No, that's too risky. We need a business case."

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