A Matter of Perspective



Sales and manufacturing are more alike than we may believe. Both disciplines have common objectives and problems. Granted, manufacturers focus on the physical transformation of material, while sales deals more with the psychological and emotional sides of relationships and agreements. Yet at the core, both sales and manufacturing are in the business of delivering goods or services to an end customer.

Anyone who has been involved with developing sales, carrying the bag, bringing home the bacon, and so on, knows that without a "sale" nothing else matters. Without someone buying what you produce and cash coming in the door, nothing you do or produce in your company matters. Ah, but there's the rub. All the technical people revolt, this is your call. If it weren't for the technical development and all the hard, intellectual work and sweat from the passionate, diligent staff at home, there would be nothing to sell, no differentiating features that set you apart from the competition. In fact, sales is a necessary evil and sales people get all the glory and pay while the brains and heart of the organization who do all the work are underappreciated.

So here we have the conundrum. The chicken and egg, which is witch, who comes first and what drives what? Is it true that technology driven companies often suffer from lack luster growth because they have the cart before the horse? Or is it true that the technology or invention is what makes sales possible? And what's all this got to do with manufacturing?



Manufacturers are smiling. They know. Manufacturers generate the goods. They make the products that the customer wants. It's where the rubber meets the road and progress is made. Yet they too have a precarious relationship with their technical brethren. Without the production that manufacturing provides, all that design engineering produces means nothing. In fact, it is the manufacturers that are the heroes that stand on their heads, working miracles producing product that can be delivered to the customer with quality and reliability; just like sales people who spend thankless hours, absorbing countless rejection blows for the company to bring home the bacon so we can all eat.

Some days I wonder whose side I am on. Now that all the "technical and engineering" folks are completely annoyed, there are two sides to each story. Just like politics, there are polar opinions, but for the most of us, we live in the middle, understanding of the needs of both sides and sincerely interested in doing what's best for all. But at the end of the day, we can only do so much. So while the

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fringe zealots fire bullets, we keep our heads down performing the work we were trained to do trusting that it will all work out.

Maybe it's time for us to come out of the trenches and start taking a more proactive role in the outcome. With the risk of getting hit by the zinging bullets, this paper is not about politics; I'll leave that for someone else. This article is about satisfying the needs of a customer. It is about technical development, manufacturing, sales, customers, and all the stakeholders in a company who put in their time to be successful at work and to be satisfied with their lives. This is about making some bold changes in our perspectives to gain efficiencies for the system as a whole. I am talking about a watershed moment in history when the modern economic world became flat. Today, when I watch World Golf on high definition TV being played in China, I can't tell by the gallery and surrounding scenery if it's in China or Chicago. The fact is that we (everybody) have no sacred, territorial or socioeconomic, handed-down advantage any more. The world is infinitely more competitive and the customers more demanding than even just four years ago. We have to make some dramatic changes to compete in this new global environment.

Let's go back to manufacturing and sales. For decades, manufacturing has gotten all the money (just like the sales people get all the money). Cash is thrown their way to get product out the door; six sigma, APQP, quality control, expensive equipment – all spent in manufacturing. And whose fault is that? This can be argued for hours. In sales, the greatest sales person can have the worst product and be a failure. With great effort and talent, that sales person could be successful in spite of a lousy product. In reverse, a lousy sales effort can kill a great product. It's a rare moment when everything is perfect and we all just get lucky. The best outcome is when sales and technical are working in harmony, both sides appreciating each other's difficulties, and both clearly focused on perfect execution, delivery and customer value.

The same is true for manufacturing and engineering design. No longer can any company afford to get lucky in manufacturing. There is no luxury to commit engineering resources without first accounting for every penny that will be spent in manufacturing. Just as technical development must understand sales, there should be no engineering without upfront total production cost modeling. Teams must expose and understand the production steps, pitfalls and opportunities in order to engineer the right design.

Manufacturing and engineering must work together from the start. The radical change required is the order in which the collaborative team perceive and model the design. Status quo is for engineering to understand technical requirements, decompose the requirements, cost estimate sub-systems, labor and overhead, detail design the components and sub-systems, integrate the sub-systems, validate performance, release drawings, get detail quotes and then start detailing the manufacturing plan. This is a performance, function dominated view point.

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The radical change that must occur is the collaborative team must change their viewpoint from a "performance, function viewpoint" to a "production viewpoint."

The production, the "big show" is where the money is. Manufacturing and production must be the new vantage point. Production modeling must come before detailed design, and must evolve concurrently with the detailed design. Until we model the production, how all the pieces and parts will be delivered, handled, assembled, quality assured, and all this rolled up to an acceptable financial confidence success level, there is no point is committing any engineering resources. This viewpoint will force the team to work together to understand the complexities of a concept so a more elegant solution can emerge. Furthermore, design reviews led by the production/assembly process will generate more relevant information and minimize the chances of missing critical issues that may cause us great anguish later.

I do not have the answer to who's more important. The fact is that sales, manufacturing, technical development and engineering are all vital. It is most important that we all start learning more about each other and, together, change the vantage point from what we understand to what we must produce and deliver to the customer with high value, right the first time.

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