

Why do so few companies use the DFSS Methodology ?

Part 2: The Operational Roadblocks

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From Part 1: The Operational Roadblocks, we discussed what types of difficulties are typically encountered when trying to apply DFSS to a product, process or service. Now, let's talk about the other types often faced by companies venturing down the path of DFSS, the organizational roadblocks.

Let's start with looking at a Lean Six Sigma deployment. That type of deployment is a value stream that delivers benefits through process improvement. It is both proven and low risk. It fills a gap that exists since most companies lack a rigorous process to fix underperforming processes. It does come with its own change management issues, but those can be dealt with on project by project basis.

However, DFSS is about "changing the way products, processes and services are designed" and most companies have an existing design process staffed with highly educated and trained individuals. If we try to "plug and play" with DFSS, we can certainly expect some significant change management challenges because replacing the new with the old doesn't happen overnight with product and process designers. Hence, the transition should be carefully planned out and a DFSS maturity path established where the DFSS process is gradually woven into the existing design process.

Secondly, the DFSS process requires closer coordination of the design activities than what most companies are accustomed. The functional silos that exist in many of today's companies will limit the benefits of DFSS. In other words, the paradigm that sales and marketing captures the needs and wants of the customer then design creates the solution and then manufacturing builds it, needs to change. Imagine if engineers or process designers actually spent time with customers? What if sales and marketing participate in the conceptual design activities? It is this "blurring" of the functional lines that will increase the benefits of DFSS.

Thirdly, there is a bit of "blind faith" that management and leadership must have regarding DFSS. The rigors of DFSS involves committing more resources earlier in the process so as to avert the expensive "fire-fighting" that occurs when products/processes or services are launched before they are truly ready. Recall from the discussion on operational roadblocks, things like adequately assessing the needs and wants of the customer, establishing the relationship between inputs and outcomes, and doing predictive design activities require higher levels of resources earlier in the process. However, the end result is less total cost and loss of customer "good will".

Lastly, it should be realized that DFSS projects and DMAIC projects are not necessarily equal. Expecting DFSS projects to have the same cycle time and hard benefits may leave management disappointed. Although transactional or service process designs are typically shorter, depending on the infrastructure needs, even those can stretch 1-2 years. The benefits of DFSS projects are typically not "hard dollar", bottom line savings but top line growth, and cost avoidance.

With a well-designed DFSS maturity path, committed leadership, a change ready organization, and an overall burning desire to do better than the status quo, the organization roadblocks can be overcome. It's truly more of a marathon than a sprint, but an achievable goal where huge rewards await at the finish line.