Design for Six Sigma (DFSS)

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New Product Design In The Service Industry

A Study (de Brentani, 1993) On The Approach Used To Develop New Services In The Financial Industry Found That:

“...Companies tend to use a **hit-and-miss approach** when planning new services where: ideas are generated and defined in a **haphazard** fashion; **limited** customer research is carried out prior to planning the design; service designs often **lack** creativity and precision and do not incorporate the appropriate technology; testing for possible fail points **is rarely** done, and market launch is often characterized by **trial and error**”
Why Use DFSS?

Upfront Investment Is Most Effective And Efficient

DFSS = Cost Savings & Market Gains

Time

Launch

# of Design Changes

Proactive Design Company

Reactive Design Company

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DFSS Overview
It Is a Part of a Network of Processes Backed by a Set of Robust Tools...
What Is DFSS?

Reactive Design

“Moving target” requirements that result in rework and tweaking of the design

Proactive Design

Targets and specifications for CTCs based on VOC collection and analysis. CTCs are ‘cascaded’ into the design

Build, then test

Predicting the capability of the design before build – measure ability of design to meet CTCs during the design process

Measure after the fact

Quality by inspection

Quality by design
Deciding Between DMADV or DMAIC?

- Define
  - Process Exist?
    - NO: Measure
      - Analyze
        - Design
          - Validate
        - Redesign Existing
    - YES: Improve
      - Measure
        - Analyze
          - Improve

- Improve Existing
- Control

- Design New
Design for Six Sigma - DMADV
### DFSS Project Selection Process

<table>
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<tr>
<th>Step</th>
<th>Description</th>
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| 1    | Generate project ideas based on strategic business objectives. Consider:  
strategic direction of the company  
Customer feedback  
Benchmarking data and competitive intelligence  
Information from the business, employees in the business, and marketplace  
**Step 2.** Review the list and compare with existing projects, both Quality and PM projects  
**Step 3.** Determine evaluation criteria for project selection. Consider:  
How does the project link to business strategy  
Impact on expenses or revenues  
Availability of data for customers and any existing processes  
Availability of resources and time  
Scope of the project and ease of completion  
**Step 4.** Weight each of the criteria  
**Step 5.** Evaluate potential project against the criteria (attempt to merge project ideas where possible)  
**Step 6.** Make the initial project selection |
Six Sigma DFSS Summary

- A little extra effort upfront pays huge dividends over the life of a product or process

- DFSS is for new products or processes, or those that perform so poorly that they need to be completely re-engineered

- Utilizing DFSS is one of the best ways to be a leader in your industry by developing “world-class” products and services upfront

- Continue to watch SixSigmaTV.Net for all of the information you need to drive Six Sigma into the DNA of your organization.

- For help, contact us at SixSigmaTV.Net
Contact Us

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