

Improving The Outcome of Lean and Six Sigma Projects with A Cost Management System

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ABSTRACT

This presentation is aimed at reviewing the current approaches, practices and methods in cost engineering. Given the complexity of any product design endeavor it is paramount to have accurate cost data to fully understand the costs involved for the creation of a cost estimate prior to the start of the design phase. The three principal areas reviewed cost engineering methods, cost engineering practitioners and cost or product cost management systems.

The literature is rich with studies and reviews on cost engineering methods such as activity-based costing, standard costing, value costing as well as many others, so this presentation will discuss the current state of each these methods. What is more difficult to find in literature is the role of cost engineering practitioners in design project methodologies that may be associated with DFSS or other DfX practices.

The third approach to be review is the newest player in cost engineering – product or cost management systems (PCM or CMS). These systems can provide immediate access to costs relating to the sourcing of parts and materials, labor rates for different skills and locations, manufacturing costs for different processes as well as other costs needed for decision making.

This paper is the result of an extensive literature review of peer reviewed journal articles that have been published in journals related to how cost data is developed, maintained, and then used in projects that create new products and the re-design of existing products.

Keywords: ABC Costing, Cost Engineering, Cost Management Systems, Design to Cost, Design for Six Sigma, DFSS, Life Cycle Costing, Product Cost Management, Value Engineering