

Lean Six Sigma practical case studies

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Abstract:

Lean Six Sigma method is recognized widely and has been implemented predominately in manufacturing rather than in the construction industry. To illustrate the point, this paper draws attention to the adoption of Lean Six Sigma in the construction industry with a case study. The combination of Lean tools and Six Sigma methodology is used on projects to improve the process by eliminating the variations and creating workflow in a process. Despite its relatively new introduction to the construction industry, it has been popularized by several organizations and adopted as the primary improvement process. The hypothesis of this experimental study was that the Six Sigma technique can be applied to the construction-based production system along with lean construction techniques. To test the hypothesis, we applied Lean Six Sigma methods on concrete panel production system in a multi-housing complex project. The paper shows how the production rate of concrete panel was improved and stabilized along with the use of Lean Six Sigma tools. Also the case study uses the variation of panel production as a critical total quality (CTQ) to measure the performance indicator of Six Sigma system. Lean and Six Sigma are recent developments in continuous improvement methodology that have been popularized by several high-profile companies. The success and complementary nature of these methodologies has led to their combination into a single methodology, commonly called Lean Six Sigma or Lean Sigma. Although there is considerable literature available and many consultants involved with Lean Six Sigma, very little published research addresses the practical experiences of companies that have implemented Lean Six Sigma. The research question for this research is: How and why are certain private sector implementations of Lean Six Sigma successful or unsuccessful? The investigative questions

further focused the research question and identified several factors that appeared to significantly contribute to implementation success. Cash flow deficit situations and working capital control are major challenges for many companies, especially those whose suppliers and clients have strong bargaining power. This study aims to describe the application of the Six Sigma methodology for solving these problems in a large German food can manufacturing company. A practical and technical guide to fully understanding and implementing LSS for any organization, from manufacturing to service facilities, this book is based on concepts related to total quality management, data analysis, and statistical process control. It details an LSS process that has been applied and refined during the past 10 years on more than 20 LSS projects around the globe. The book includes a framework for implementing LSS, discusses LSS strategies, and includes case studies from service and manufacturing organizations.: Indian automotive ancillary units are one of the swift growing within the small and mid-sized group of industries which are influential contributors to the complete production of auto components. With the ascent in interrogation of growing customers and presuming for resplendent quality of their product, some of giant Indian organizations are inspiring their suppliers to employ Six Sigma in order to improve the quality of their process and products for embellishing competitive advantage. This paper focus on a case of provoked mid-sized auto ancillary unit consisting of 350-400 employee and employed Six Sigma (SS) methodologies to elevate towards the dream of SS quality level. The methodology is executed on one of product assembly for trimming down defects level which are critical to customers and its implementation has had a significant financial hit on the bottom-line of the enterprise.