

## **DEFINING PROBLEM: A HIGHLY CRUCIAL PART OF SIX SIGMA BREAKTHROUGH BUSINESS IMPROVEMENT STRATEGIES**

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### **Abstract**

Over the years many useful systems have come into existence to strengthen the overall business function and to have much needed operational excellence. Toyota Production System, Single Minute Exchange of Dies (SMED), Pokayoke, Statistical Quality Control, Total Quality Management, ISO certifications, Lean manufacturing, etc. are a few well known examples. Six Sigma is one of the most effective breakthrough improvement strategies. There are two basic methodologies, DMAIC (Define-Measure-Analyse-Improve-Control) for process improvement and DFSS (Design for Six Sigma) for design improvement. It is observed that DMAIC methodology is much in use. This paper discusses the criticality of problem definition in *Define* phase through relevant literature review and with the help of a real life industrial case. The case is concerned with an industry facing a problem of failure in delivery schedules. The paper illustrates the deceptive problem statements a project team may come across at *Define* stage and provides guidelines on arriving at correct problem definition, which is, in fact the key ingredient of success of any Six Sigma drive.

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**Keywords:** Breakthrough improvement strategy, CTQ (Critical to quality), DMAIC (Define-Measure-Analyse-Improve-Control), Operational excellence, Six Sigma.