Introduction to Six Sigma

Six Sigma is a rigorous systematic and scientific improvement method utilizing statistical analysis to improve the reliability of processes and eliminate defects.

Key features of Six Sigma include

• Focus is to eliminate defects-nonconformity of a product or service to its specifications by “mistake-proofing”
• Goal is to achieve six sigma for processes which equates to variation that results in <3.4 parts/million defects
• Utilizes quantitative and qualitative tools to achieve improvement and requires extensive training in statistical analysis and project management
• Customer and financially focused
• Strategic and costly; reserved for well-defined projects that have a direct impact on the financial bottom line

5 structured project phases-DMAIC approach

Define  Measure  Analyze  Improve  Control

Common Six Sigma Tools

• Statistical Process Control (SPC)
• Control Charts
• Failure Modes and Effects Analysis
• Process Mapping

The content included in this document is provided as a brief overview of Six Sigma concepts. Numerous websites and texts are available that provide additional information about Six Sigma.

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