



Simplexity System Provides Crucial Innovative Thinking Boost to Continuous Improvement Process

Faced with cutthroat competition within the aerospace industry, a manufacturing company was under significant pressure to reduce its costs while enhancing the quality and performance of its components. Although already employing a number of Continuous Improvement (CI) tools to respond to its performance challenges, the company was struggling to achieve long-lasting tangible results.

07.02.03 In an effort to identify improvements in its CI process and accelerate performance yields, the Toronto, Ontario firm undertook a two-year evaluation process which included the integration of the Simplexity Creative Problem Solving system into its CI toolbox. A key goal was to ensure CI activities focused on well-defined, manageable and value-added problems that aligned with corporate business requirements with human-centered leadership.

Results and Impacts

By “turbo-charging” CI programs such as Lean, Six Sigma and 5S with the Simplexity system, the project increased the number of implemented solutions from 30% to 70%, while reducing the time required for conducting a successful CI project by 50%. First year annual benefits were maintained in subsequent years. A significant rise in performance resulted from the identification and removal of roadblocks to success.

Methodology

Key challenges were recognized, as the project evaluated six CI projects over a two-year period. The identified priorities included:

- How might we efficiently scope CI projects to focus on clearly defined problems?

- How might we ensure appropriate CI tools are matched to specific CI problems? Failure to manage this properly results in an inefficient trial and error strategy.
- How might we provide adequate process facilitation to the CI projects? Process leaders are crucial to maintaining the focus of the project. When this role is downloaded to content leaders (whose main responsibility is providing subject expertise), the result is a narrower scope and resolution.
- How might we assess the performance of the processes employed in a CI project?

A number of CI tools, as well as the Simplicity system, were used to evaluate and improve the CI process and efforts. Statistical measures were used to evaluate quality and performance improvements.

Conclusion

The study found that CI programs are capable of yielding significant ongoing benefits to a company. However, the implementation of a number of key strategies could result in a substantial improvement in results.

- An integrated toolkit of CI processes and tools are most helpful for tackling the range of quality and performance problems encountered in a complex manufacturing environment.
- Clearly defined roles within the CI project are crucial, and a designated process leader with responsibility for managing and guiding the team through the activity is essential.
- Proper problem definition and a sound problem solving strategy are needed to ensure teams spend their time solving the right problems. Problems originating with customers and suppliers (key external sources) must be integrated into the process of problem evaluation.
- Each project should have a very clear definition and expected benefit assigned to it. Projects should be quickly shelved or redefined if new information and analysis indicates that an appropriate rate of return cannot be realized.