THOMASGROUP

Theory of Constraints

Theory of Constraints Defined

Theory of Constraints (TOC) is an approach to process improvement that focuses on constrained elements to improve output. It is based on the fact that, like the weakest link in a chain, often one element of a complex system is most limiting the ability to achieve an objective. Focusing effort and investment on that problem factor can maximize the returns on an improvement initiative. Once the constrained process element is remedied, the next weakest link can be addressed in an iterative approach.

Theory of Constraints Applied

Assuming that there is unmet demand, constrained output limits profit. Increasing the output of the constraint (for example, removing the bottleneck) will increase total process output 1-1, or at least reach the next constraint. The process continues as the weak links are addressed in priority order.

Key Steps

- Identify the constraint (bottlenecks are identified by inventory pooling before the process)
- Exploit the constraint (increase its utilization and efficiency)
- Subordinate and synchronize all other processes to the constrained process (other processes serving the bottleneck)
- Elevate the constraint (increase bottleneck capacity)
- “Rinse and repeat” (after taking action, the bottleneck may have shifted or require further attention)

Theory of Constraints at Thomas Group

Thomas Group has a long and successful history of using Theory of Constraints when the underlying marketplace conditions call for it. When increased output is the goal and it can be profitably sold, the TOC toolset provides a conceptual framework for improvement. Like any other point solution, TOC is not a silver bullet and is not universally applicable. However, if the process and the market are such that a TOC approach is applicable, Thomas Group capably applies this tool, either alone or in conjunction with other tools, to achieve sustainable results.