The performance of the theory of constraints methodology: Analysis and discussion of successful TOC applications

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Abstract

The theory of constraints (TOC) is a multi-faceted systems methodology that has been developed to assist people and organisations to think about their problems, develop breakthrough solutions and implement those solutions successfully. This paper describes a literature-based research project examining the results of TOC applications reported in the literature. In particular, it presents here the results of a meta-analysis of over 80 successful TOC applications, based on available quantitative data, which showed that significant improvements in both operational and financial performance were achieved as a result of applying TOC. Despite extensive searches, the research found no reports of failures. While reports are mainly from manufacturing organisations, the findings may be generalisable to other types of organisations, particularly to their operational aspects. The paper concludes with an agenda for future research on the use of TOC in operations and production management.

Keywords

Systems Methodology Surveys Performance appraisal

Citation


The performance of the theory of constraints methodology is an organizational change method that is focussed on profit improvement. The essential concept of TOC is that every organization must have at least one constraint. A constraint is any factor that limits the organization from getting more of whatever it strives for, which is usually profit. The Goal focuses on constraints as bottleneck processes in a job-shop manufacturing organization. However, many non-manufacturing constraints exist, such as market demand, or a sales department's ability to translate market demand into orders. The Theory of Constraints defines a system that the theory of constraints is an important tool for improving process flows. The implications of the theory are far reaching in terms of understanding bottlenecks to a process and better managing these bottlenecks to create an efficient process flow.