PROJECT MANAGEMENT THE TOC WAY

Critical Chain Project Management

by Goldratt Schools

EDITOR'S FORWARD

The Theory of Constraints body of knowledge has expanded rapidly over the last three decades. It springs from complex systems theory, multi-dimensional linear programming and a belief that logic can successfully be applied to technical-social human organizations. One of its most exciting applications is in the area of multi-project management known world-wide as Critical Chain Project Management, or CCPM. This books brings to the project manager a succinct overview and some of the major developments, some very recent, in the last 20 years. The eleven authors from seven countries offer useful insights into the CCPM application body of knowledge from the Goldratt Schools' perspective.

As with other existing applications of TOC thinking (including Operations, Supply Chain, Marketing, Sales, Accounting, Finance), parts of CCPM are counter-intuitive. We all try to do the best we can. Unfortunately, in large organizations, what is best for one part of the organization is rarely best for the organization as a whole. The term for this is 'sub-optimization' or, more precisely, optimizing at a local level to the detriment of the larger organization. In project management, the result of focusing on individual task performance frequently results in missed due dates, over-run budgets, and inadequate project scope. This generates unhappy customers and, for the organization, lost sales, decreasing profits and poor stock performance on the exchange market.

The nine articles in this book, separated into five chapters, are designed to provide the knowledge and guidance to overcome sub-optimization and produce successful projects beyond most manager's wildest dreams.

Chapter 1 presents the foundation knowledge. Oded Cohen explains the complete structure and basis for the CCPM application. The full solution to the multi-project management problem consists of nine injections (actions), one to set the proper mindset, three to do the planning, and five to control the implementation execution. But management is not a static exercise. There are always new project opportunities. Eli Schragenheim addresses, in a very pragmatic way, how mangers can decide whether to accept or reject these new projects. This is an excellent introduction to CCPM at a high-content level.

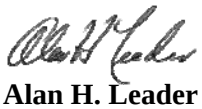
Chapter 2 builds on this theoretical foundation with an article by Jelena Fedurko explaining how CCPM can be implemented in a large company. Understanding the management imperative, and based on Goldratt Group experiences, the necessary implementation actions are field-tested, as well as clear and detailed.

Chapter 3's three articles speak to recent developments in CCPM implementations. Addressing two concerns, first that TOC is too theoretical and, second, that CCPM must be able to handle uncertainty. Yunn-Jin Hwang, Yu-Min Chang, and Rong-Kwei Li describe the adaptation and use of CCPM and the Strategy and Tactic tree in Taiwan. They describe successful CCPM implementations in high-tech electronic component manufacturing. Philip Viljoen discusses the use of Strategy and Tactic trees in CCPM with reference to management literature and with a field case study. Frances Su presents an exploration of TOC applications, to form the holistic approach for the continuous improvement of the machine tool industries.

Chapter 4, recognizing that TOC has moved from the field to the classroom, uses academic case studies to meet the education and training needs. Roy Stratton shares the Goldratt Group experience of implementing CCPM in the Japanese construction industry and evaluates the use of the Strategy and Tactic tree within CCPM. Alejandro Fernandez Rivera reports on several CCPM implementations in Colombia. He then responds to the recognition that multi-project management is indeed the task of most managers and addresses those training needs.

Finally, in Chapter 5, James Holt deals with three counter-intuitive problems by presenting some simple games that have proved effective in teaching CCPM. The first, Job Shop Game, shows the need to choke the release of projects because projects released early do not finish early but instead slow all projects down. The second, Sixes Game, shows how providing safety at the task level extends the time needed for completion of the project. The third, Assembly Game, demonstrates the value of feeder buffers and introduces the concept of a resource bench.

These nine articles cover the CCPM Application body of knowledge from theory and structure through implementations, developments and assessments and, finally, to teaching some difficult material. It is a goldmine of Project Management information. If you are new to project management, this book will help you do your job. If you are an experienced project manager and are not already using CCPM, you really need this book.



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