

## Guest editorial

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# Special issue on the Theory of Constraints – Practice and Research

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**Boaz Ronen** is a Professor of Technology Management at Tel Aviv University, Faculty of Management, the Leon Recanati Graduate School of Business Administration. He holds a BSc in Electronics Engineering from the Technion, Haifa, Israel, and an MSc and PhD in Business Administration from Tel Aviv University, Faculty of Management. Prior to his academic career he worked for over 10 years in the Israeli Hi-Tech industry. His main areas of interest are focused on increasing shareholders' value. In his work he combines

value creation, management of technology, information systems, the strategic and tactical aspects of the Theory of Constraints (TOC), and advanced management philosophies. He has consulted to numerous corporations and government agencies worldwide. During the last 18 years Professor Ronen has been leading a team that successfully implemented TOC and advanced management practices of value creation in dozens of industrial, hi-tech, IT and service organizations. Professor Ronen teaches in the EMBA and MBA programs at Tel Aviv University. He has been commended numerous times and got the Rectors' award for outstanding teaching. He was also a visiting professor at the schools of business of NYU, Columbia University, the Kellogg-Bangkok program at the Sasin Graduate Business School, Stevens Institute of Technology and at the MBA program of SDA-Bocconi (Milan, Italy). Prof. Ronen has published over 100 papers in leading academic and professional journals, and co-authored three books on Value Creation, Focused Management, Managerial Decision Making and Cost Accounting.

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The Theory of Constraints (TOC) has spread as a significant managerial philosophy during the last two decades. TOC has been successfully implemented in production, logistics, distribution, project management, research and development and sales and marketing in small and large organizations. Its implementation spans across a multitude of sectors in all industries: the private and public sectors, flow manufactur-

ing as well as job shop operations, start up companies and corporate America, for profit and not-for-profit organizations. If implemented properly, TOC could lead to significant results in a relatively short time.

However, contrary to the vast application of TOC in practice, very little TOC research has been published in refereed academic journals.

Some reasons may be given for the low profile of TOC in research academic journals:

- TOC is a heuristic-oriented philosophy based on Herbert Simon's "Satisficing" approach. Many academic journals prefer process-optimizing, quantitative approaches while the goal of TOC is simplicity.
- TOC processes are cause-effect driven. Academic journals often give preference to field studies with empirical data.
- TOC was originated – like JIT or TQM – by practitioners, rather than by academic researchers. As a result, not enough academics have been exposed to its full contribution.
- TOC is often misperceived as a simplistic toolkit that does not need thorough research.
- TOC is viewed as a cult and thus inaccessible to the academic community.

Many TOC practices have their roots in well established Management Science and Operations Research concepts (for example, the "focusing steps" and the mathematical-programming approach). Some practices have not yet been confirmed by academic research methodologies. It is therefore valuable for both academics and practitioners to apply academic methodolo-

gies to TOC concepts and confirm or improve its methods.

TOC researchers should also conduct their research using well established academic research rules. Even significant managerial breakthroughs such as TOC should be positioned within the continuity of preceding academic research on managerial practices rather than as institution-free, stand alone concepts. This has happened in the past with JIT/Lean manufacturing and quality improvement. On the other hand, the academic research community should, in some cases, encourage new ideas and methods even if they do not fully follow prevailing academic conventions.

This issue serves as a take-off platform for TOC research, and will hopefully help to close the gap between TOC and the academic world.

I would like to take this opportunity and thank all the people who have contributed their time, effort and expertise to produce this issue. My special thanks go to Shimeon Pass and Alex Coman for their help and to Milan Zeleny for offering us the opportunity to have this issue published.

Boaz Ronen  
*Guest Editor*