



Application of the Theory of constraints (TOC) to significantly improve the results of retail and distribution companies

Theory of constraints (TOC) is a holistic management methodology developed more than 30 years by Israeli physicist and business guru Dr. Eli Goldratt. TOC provides set of focusing and critical thinking processes that enables us to determine what block the improvement of an organization and to find a solution with which to overcome these constraints in a way that will achieve significant results, the buy-in and active contribution of all the key stakeholders. Some TOC Solutions are:

- Managing Manufacturing, Supply-Chain logistics (drum-buffer-rope, replenishment, dynamic buffer management).
- Project management (Critical Chain Project Management).
- Retail.
- Finance and Measurements (Throughput Accounting).
- Sales & Marketing (Decisive Competitive Edge, Unrefusable offers).
- Business Strategy.

TOC is applied in various business companies, government organizations, hospitals, schools, courts all around the world.

SUPPLY CHAIN MANAGEMENT BASED ON FORECAST

When the supply and inventory buffer levels in the various stock locations of the system are based on forecasts, some of the goods are sold faster than forecast, leading to:

- Stockouts (mainly FMCG)
- increased costs, due to urgent delivery
- Missed sales
- Loss of customers
- Reduced profit

Other SKU`s are consumed slower than forecast, leading to overstock associated with:

- Limited Cash / Space
- Limited Range
- Slow movers surpluses diminish sales of fast movers
- Jeopardize sales of new products
- High level of obsolescence
- Increased Inventory handling cost
- Markdowns
- Lost sales
- Reduced profit

Supply chain management based on forecast always leads to the main problems in the Retail and Distribution companies – stockouts and overstock.

So, the main factor reducing margin, ROI и net profit are:

- **Stockouts** of some SKU`s. In many cases stockouts are missed sales opportunities. In the long run some customers are disappointed and lost.



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- **Overstock** of other SKU`s increases expenses, leads to markdowns and write-offs, reducing the profit and company image.

International GMA Research Study (2007) *“Retail Out-of-Stocks: A Worldwide Examination of Extent, Causes and Consumer Responses”*, Scope: 661 Retailers, 32 Product Categories, 71,000 Consumers Interviewed, 29 Countries shows that stockouts on average for the world, are about 8 %. The same study shows that half of those are missed sales.

Another Study from July 2015 shows that Retailers worldwide are having potential to increase revenues 7,5 % without opening another store.

\$1.1 trillion is the amount that retailers lose worldwide in terms of revenue from Out-of-stocks and excess discounts from Overstocks

Depending on Gross Margin, Operational Expenses and Net profit percentage 1 % more sales are equal to 3 to 10 % increase in Net Profit. In some cases the Net Profit increase is more. 7,5 % sales increase is equal to Profitability gain of 25 to 50 %. In many cases more than 100 %.

TOC SOLUTION OF THE MAIN PROBLEM IN THE RETAIL AND DISTRIBUTION – SUPPLY CHAIN MANAGEMENT BASED ON ACTUAL CONSUMPTION

TOC Replenishment Solution is based on actual consumption, rather than forecast.

The solution includes revolutionary technologies such as:

- Dynamic analysis and different management model for Head, Body and Tail SKU`s
- Frequent replenishment and Dynamic Buffer Management, based on actual consumption
- Stock aggregation points
- Assortment management
- Improved synchronization between “End of Life” and "New product introduction"
- win/win partnership with the vendors

MAIN RESULTS OF TOC REPLENISHMENT SOLUTION APPLICATION

- Increased Inventory turns - 30-50% as a beginning, doubling as a goal
- Significant reduction of best sellers stock outs
- Low levels of Slow moving goods
- Greater range and significantly lower overall level of Inventory
- Increased traffic, customer loyalty and more sales
- Significantly increased Inventory turns, margin, ROI and profit
- Sustainability in the long run
- Reduced conflicts and increased harmony in the organization.

For the practical application of the solution is crucial to be accepted by the team and instead of "resistance to change" to create active participation in the change process to achieve common goals.

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