Applying TOC Distribution on a High Demand Variability Environment:

A Case Study in One of the Largest Cosmetic Franchise Chain in the World

Speaker: Wellington Marcos Machado
Introduction: Company Overview

- One of the largest cosmetic franchise chain in the world
  - 1,700 direct employees
  - 600 beauty products
  - 900 retailers with 3,000+ stores

- Presence in 10 countries
  - 1,000 international points of sale

- Stores Revenue 2010: USD 2.5 billion
Introduction: Supply Chain Structure

- 1 manufacturer plant
- 1 manufacturer DC (135 miles away from Plant)
  - Serves all 3,000+ Stores.
  - No regional DCs.
  - Weekly deliveries to almost every store.
Company Peculiarities

- Constant Changes in Portfolio – 600 Active Products with 200 product launches every year.

High Demand Variability Environment

- Increases in demand can reach as much as 1000% for some SKU’s in one month.

Limited Supply Chain Visibility
- % of completed orders to franchisee below wanted
  - Out of Stocks.
- Inventory Coverage too High.
  - Excess inventory
- Event Planning Difficulty
  - Large number of Promotional Campaigns
Replenishment Model Dilemma

- Manage Stocks Well
- Replenish According to Consumption
- Don’t Use Demand Planning on Top of DBM
- Push Inventory to React to Sudden Rises in Demand
- Use Demand Planning on Top of DBM

CONFLICT
Replenishment Model Dilemma

DBM

Assumption

- Demand is known to be very stable or with soft seasonal variations.

Goal

- Improve Inventory Turns and Availability

Pros

- It takes actual consumption into account and reacts fast to it.

Cons (UDE´s)

- It doesn’t react fast enough to sudden rises in demand.
Replenishment Model Dilemma

Demand Planning

Assumption

- What has happened in the past will in some way happen in the future and can be predicted.

Goal

- Improve Inventory Turns and Availability

Pros

- Future events and historical behaviors are taken into account

Cons (UDE´s)

- It doesn’t take actual consumption into account, inventory levels are set according to historical averages.
Replenishment Model Dilemma - Solution

- Replenish According to Consumption
- Manage Stocks Well
- Push Inventory to React to Sudden Rises in Demand
- Don’t Use Demand Planning on Top of DBM
- Use Demand Planning on Top of DBM

CONFLICT
Hybrid Model (Forecast + DBM)

Assumption

- Demand behavior alternates periods where a more stable demand pattern with subtle changes is in place with others where steep changes that can be foreseen occur.

Main Benefit

- In a daily basis actual consumption data is taken into account to calculate inventory levels (DBM) and when needed a forecasted demand can help adjusting the inventories for a sudden change (Forecast for Seasonality and Special Events).

Main Disadvantages

- It can be difficult for people to work in a two model system.
How to Replenish?

Hybrid Model (Forecast + DBM)

Example:

Stock Push Input

DBM Adjustment
The Project

- Started with a pilot comprising the 2 largest franchisees:
  - 1 franchisee with 26 stores (73 total);
  - 1 franchisee with 36 stores (75 total).

- All products were involved, including all product launched during the pilot.

- Project Scope:
  - Collaborative Demand Planning
  - DBM and Weekly Collaborative Replenishment At Stores
The Project

• Project Timeline:

  3 Months  3 Months
  Preparation  Pilot  Go-Live  Decision  Roll Out  Point Based on Results

• Pilot Goals:

  • Agreed with the client prior to beginning of the project;
  • Set after researching “similar” projects results;
  • A necessary condition for the roll out;
  • Introduced as company’s KPIs.

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<thead>
<tr>
<th>Inventory Turns</th>
<th>Increase by 20%</th>
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<tr>
<td>Stockouts</td>
<td>Reduce by 30%</td>
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The Project

Collaborative Planning Process

Franchisees Inputs

Events Plan

Consensus

Stock Pushes Plan
The Project

Collaborative Replenishment Process

MANUFACTURER

PLANT

DC

Sales & Inventory Data

Suggested Orders

STORES

3000+

DBM

Stock Pushes Plan
The Project

Collaborative Demand Planning

- Statistical Forecast Based on Historical Data
  - Statistical Forecast Done Using Sales and Past and Future Events Impacts as Inputs.
- Manufacturer plan is sent to franchisees to scrutinize and give their feedback.
- Final consensus plan is used as a input for the DBM and Replenishment process.
- Stock Pushes by SKU are the end result of the process.
DBM and Weekly Collaborative Replenishment

- Store Buffers Adjusted by Actual Consumption and When Needed Increased by Stock Pushes Plan.

- Weekly order quantities are sent to franchisees for approval.
  - Industry policy of no enforcement.
The Results (Financial)

TURN OVER INCREASE

Goal

PILOT RESULT

20%
The Results (Financial)

STOCK OUT REDUCTION

Goal

PILOT RESULT

30%
The Results (Qualitative)

- Increased trust in the collaborative process and the suggested orders
  - By the end of the pilot some stores were running on full automatic replenish mode;
  - Suggested quantities were smaller than “normal” franchisee orders.

- Less time spent in operational work.
  - More time for analysis and planning.

- Single planning and replenishment process throughout the supply chain.

- Focus on sale to end consumer and Event plan sharing increased supply chain visibility.
Next Steps – Roll Out

Expansion to Franchisees with high level of corporate governance

Stores Revenue

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<th></th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
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<tbody>
<tr>
<td>Percentage</td>
<td>9%</td>
<td>50%</td>
<td>67%</td>
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Agentrics is a global provider of business solutions for the supply and demand chain. With Agentrics, world leading retailers, brands, and manufacturers are
- Launching more products faster
- Achieving significantly higher inventory turns, with fewer out of stocks
- Delivering substantial savings through efficient spend management & sourcing
- Benchmarking performance against the world’s best.

Agentrics was founded by the world’s top retailers to help increase their competitive edge and profitability through the joint development of best practices. Today, Agentrics offers solutions covering spend management, sourcing, supply chain planning and replenishment, online collaboration and communication as well as private label product development and lifecycle management. These solutions help our community of retailers and manufacturers:
- Build sourcing capabilities to negotiate better deals that offer higher value as well as identify new sources of supply
- Reduce out-of-stock situations and excessive inventory levels by creating a supply chain that is more responsive to demand fluctuations
- Foster a collaborative supply chain with accurate, timely, and automated data sharing
- Develop more private label or store brand products more effectively with greater product quality, especially for food items
- Share innovative best practices, address global issues and influence industry standards through in-person and online forums
About Wellington Machado

NeoGrid and Agentrics CEO, with a master in Business Administration, degree in Information Technology by The Santa Catarina State University in Brazil, specialized in Marketing by Getúlio Vargas Foundation – Joinville and Global Management by The Superior School of Administration and Management (ESAG) / Free University of Lisbon (Portugal).

In the IT business for more than 24 years besides NeoGrid he worked in companies such as Datasul Brazil, South Africa and US, Teleperformance International in US and England.

His career started in programming and system analysis, and then he managed software internationalization and support teams. Currently he is NeoGrid and Agentrics CEO being responsible for the company expansion and consolidation of two recent companies acquisition.
QUESTIONS?

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THANK YOU!