CPG Inter-Company Inventory Management Analysis and Improvement

**Motivation / Background**

- Company CPG’s Hair category is expected to grow in the following years, both for its current brands, and for the acquisition of new brands, which represent 1.7 times the current volume.
- A significant challenge in terms of:
  - Forecasting the volumes after the acquisition.
  - How to manage inventories in multiple stages.
- There is a tremendous pressure to lower the inventory costs without affecting target service levels.

**Key Question / Hypothesis**

How segmentation methods and multi stage inventory policies may help to create an inter-company strategy to reduce holding costs after large acquisitions while maintaining service level?

**Relevant Literature**

- Kaul, S. See the Relevant Traits: Better inventory management with intelligent demand segmentation. APICS Magazine, May/June 2010, 30–33.
- Inventory Management 3rd Edition and Production Planning and Scheduling, Silver Pyke Peterson
- CTL SC1x Fundamentals Key Concepts Document

**Methodology**

**Segmentation**
- Finished Goods: ABC analysis and CV of demand
  - Materials: type and criticality
- Generation of Replenishment Models using historical data of 2015-2016
  - Validation with 2017 sales data

**Model Generation**
- Compare different scenarios

**Replenishment Policies**
- Inventory strategy by segment

**The Problem**

Each stage in Company CPG has an independent strategy to achieve the required service while reducing the inventory cost.

Finished goods and Raw materials have different behaviors across the supply chains.

**Expected Contribution**

- Segmentation methods help to combine individual products that share similar features into clusters, in order to simplify inventory management.
- One model doesn’t fit all SKU replenishment strategies.
- Propose for specific products an inventory strategy with an inter company scope, that will reduce the overall inventory levels across the supply chain stages, without affecting service.