

Case study

Dynamic Segmentation

Mahindra
Rise.

Mahindra & Mahindra Drives Profitability via Dynamic Segmentation

10%

Overall reduction in
inventory quantity

**Leveraging Blue Yonder
for overall segmentation**

- 6% reduction of
inventory value
- 4% reduction of
inventory quantity

**Leveraging Blue Yonder for
location-based segmentation**

- Overall 6% reduction
of inventory value

The value of strategic demand classification

“Dynamic segmentation is a cornerstone of M&M’s spare parts strategy, integrating demand, inventory and replenishment within a unified planning framework. M&M can augment its planners’ expertise with autonomous machine-learning capabilities that strategically segment demand, yielding substantial reductions in inventory quantity and costs.”

– **Head of Demand and Supply Planning, Spares Business Unit,
Mahindra & Mahindra**

Challenges

- Part of the \$20 billion Mahindra Group, Mahindra & Mahindra Farm Equipment is the world’s number-one tractor company by volume, and its automotive business competes in almost every segment of the industry. The Spares Business Unit (SBU) provides genuine vehicle and tractor spare parts via advanced capabilities in sourcing, assembling, warehousing and distribution.
- To maximize supply chain efficiencies and service, Mahindra & Mahindra constantly evaluates scientific methods to tweak demand forecasting, inventory management and replenishment planning strategies to ensure that the right parts are available at the right place and time.
- Already a Blue Yonder customer, Mahindra & Mahindra’s SBU turned to Blue Yonder to help reduce costs and increase responsiveness by replacing its traditional, manually driven segmentation processes and tools, which often resulted in inefficient allocation, high safety inventory levels and less-than-optimal service levels.





A smart, autonomous solution for segmenting demand

The Mahindra & Mahindra SBU leverages Blue Yonder Luminate Platform, which applies machine learning (ML) to both systematically classify spare parts into unique demand clusters and establish the significance of demand attributes. The result? Built-in visibility, intelligence, context and collaboration tools that enable increased allocation efficiency and profitability.

Balancing service levels versus cost trade-offs

Via optimization techniques, powered by ML, service levels are assigned to demand clusters, with the goal of minimizing safety inventory costs. In addition, ML and artificial intelligence algorithms accurately estimate lead times and further optimize the cost-to-serve from both a customer service and inventory cost perspective. Instead of making manual decisions, the SBU can analyze data at scale, identify critical demand variables and autonomously optimize the supply chain for specified profitability goals.

Customized distribution for different demand clusters:

Enabled by Luminate Planning, dynamic segmentation has helped identify significant mismatches between customer segments and distribution configurations. There is now a systematic, strategic approach that tailors a unique supply chain for each demand cluster. As demand data changes, customers with similar fulfillment or procurement needs are automatically grouped together via a fluid, autonomous process.

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Solution benefits

- Blue Yonder's Luminate Platform leverages real-time data and ML-powered insights to compute the relative importance of all demand attributes. Then it targets critical attributes and removes variables of low significance, resulting in confident demand profiling and clustering.
- M&M's Spares Business Unit has been able to add crucial new attributes that had not been incorporated, including average quantity per order. This has increased the accuracy of clustering, leading to more efficient, more profitable allocation and inventory management.
- Via the power of ML-based automation, the SBU has improved the consistency of the demand clustering process, as well as its ability to adjust flexibly to rapidly changing demand characteristics.

Blue Yonder's expertise

"Blue Yonder's dynamic segmentation has been a game changer for Mahindra & Mahindra because it enables planners to provide differentiated service levels based on customer value and business parameters, leading to increased profitability in a complex marketplace. Demand segmentation is now the cornerstone of M&M's spare parts strategy, integrating demand, inventory and replenishment strategies within a unified supply chain planning framework."

 Luminate Platform