GAINS™ Profit Optimizes QubicaAMF’s Vision

A revolution happened in the world of bowling and entertainment on June 14, 2005, when industry leaders AMF Bowling Products and Italian-based Qubica Worldwide announced that they intended to join forces and merge. The result of this merger, QubicaAMF Worldwide, is one of the largest manufacturers of bowling and amusement products in the world.

“We are going to shake things up,” said John Walker, President and Chief Executive Officer of QubicaAMF Worldwide. “We will work with our customers to grow their business and ours, and provide the tools to make bowling centers one of the premier entertainment destinations in the world.”

In the quest to “shake things up,” QubicaAMF recognized that one of the key aspects of their success was having the best customer service in the industry. This would mean reducing current back orders to customers and making sure that the right product was on the shelf when a customer requested it. A strategic customer service and inventory management team was put in place to achieve this goal.

After working with existing tools for a year and making good strides, we realized to continue reducing inventory while improving fill rates would require something more powerful and a fundamental shift in the way we managed our supply chain,” stated Mark Kilpatrick, Vice President of Operations for QubicaAMF.

The team began looking to find a tool that would ensure off-the-shelf availability of all products at least 95% of the time, but that would also reduce corporate inventory investment and operating costs. After a national search, they selected GAINS (General Adaptive INventory Solution), from GAINSystems, Inc. GAINS was able to exceed the company’s expectations by taking off-the-shelf customer service levels above 95%, while simultaneously reducing the company’s active inventory investment by nearly 20%. “Implementing GAINS has fundamentally changed and improved every aspect of our supply chain and operations” stated Kilpatrick. “Beyond the inventory improvement and fill rate benefits achieved, we have seen an 11% improvement in labor utilization in manufacturing attributable to both the Inventory management and the scheduling optimization by GAINS. We have taken advantage of optimized purchased lot sizes to renegotiate with our vendors to save $150,000 annually, and the tools and insights provided by the system will provide many future improvement opportunities.”

QubicaAMF is now using the power of GAINS inventory planning and profit optimization to grow market share through leveraging industry leading customer service levels with which their competitors can’t compete.
The unique optimization and supply chain planning capabilities contained in GAINS that enabled QubicaAMF management to achieve such results:

1. **Dynamic Forecast Model Selection** that automatically tests for pattern plausibility and accuracy to provide an objective demand plan baseline and eliminate as much human bias as possible.

2. **Dynamic Analysis of Supply and Demand for every SKUL (SKU by Location)** across the enterprise that consider all error sources including the variability in supply and user variance from plan. The goal is to achieve precisely the cost-minimizing or profit-maximizing Service Level (not more or less).

3. **Profit-Optimized Inventory Policies** (e.g., Replenishment Order Sizing & Safety/Service Stock) calculated at the SKUL level, considering total annual cost (e.g., change-over versus carrying), comprehensive error, targeted service levels, BOM demand, and production constraints.

4. **Leading Indicator, Extrinsic Variable, and Viability Analysis** to ensure forecasts and plans are not just ‘rearward-looking’ but incorporate trade partner data (e.g., customer forecasts, POS data) as well as macro data (e.g., housing starts, interest rates).

5. **Multi-Echelon Inventory Optimization (MEIO)** algorithms that determine whether to stock items and at what service level. These solve for interdependencies within the bill-of-materiel (BOM) & among locations to devise inventory & postponement strategies while meeting customer delivery expectations at minimum total cost.

6. **Dynamic Production Optimization** that automatically creates capacity and material-feasible Master Production Schedules that sequence SKU work order requirements optimally given change-over costs, inventory carrying costs, and on-time delivery goals; also provides strategic determination of target capacity, trade-offs of pre-build versus overtime, etc.

To learn more how GAINS can Profit Optimize your supply chain -
Visit our website: www.GAINSystems.com, or
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