

Genpact transforms supply chain operations of a global Transportation major with smarter process, analytics and technology resulting in optimized overall inventory, reduced ordering cost, stock outs and aged inventory

About the client

Global Transportation Major

Industry

Manufacturing Services

Business need addressed

To improve the overall inventory management of spare parts business suffering from high ageing, high ordering cost and frequent stock-outs

Genpact solution

Deployed Genpact's Inventory Optimizer solution after business specific customizations

- Improved customer service levels with 85% reduction in stock-outs
- 30% reduction in Aged Inventory
- 30% reduction in Ordering cost
- 25% productivity released towards customer service activities

Customer testimonial

"This is great progress and is evidence of a very professional team. Your efforts are greatly appreciated by many of business locations. So beyond the stock-out savings, this as a big wins from a shop efficiency perspective. Keep up the attention to details that you are performing every day, great work."

- Executive, Pricing

Business challenge

The client could not effectively manage its on-hand inventory with extremely high inventory turns (12+) and low customer service which hurt them badly due to extremely high penalty charges against frequent stock-outs. This impacted cash flow and ultimately the bottom line.

The client followed a highly decentralized regional supply chain structure to manage these complexities and maximize customer service. This configuration made the procurement process inefficient and costly.

Insufficient inventory monitoring and control measures were also a problem, as decentralization led to lack of planning resulting in high aged inventory. Localized Min-Max was the main inventory management tactic, which prevented proper handling of seasonality and regional variations.

The client relied on mainframe based ERP system to manage inventory and procurement. Master data accuracy issues with respect to key inventory parameters such as lead times and standard costs lead to higher buffer stocks. Their IT system lacked sufficient forecasting and optimization capability pushing these into ad-hoc Excel sheets.

Genpact approach and methodology

The Project team tackled these challenges by:

- External benchmarking to validate inventory turns and customer service versus client's peers
- In-depth value stream mapping of the client's as-is inventory planning & procurement process
- Re-engineering Processes for planning & procurement
- Setting up visibility management and control processes
- Technology deployment of Genpact's proprietary Inventory Optimizer solution as a bolt-on with three phased Roll out plan across POC, BETA & Full Scale roll-outs

Genpact solution

Genpact implemented smarter processes, analytics and deployed its proprietary solution Inventory Optimizer:

Smarter Processes:

Setting up smarter process for demand planning and inventory management i.e. framework for problem identification, performance baseline and improvement.

- *Centralized planning and procurement* for top 15% SKUs with account for 80% of the monthly volumes
- *Demand forecasting*: robust forecasting engine that helped business capture seasonality and regional variations and carry out exhaustive exception management
- *Inventory management & reviews*: established weekly reviews with supply chain planners, buyers and warehouse managers to identify excess inventory, balance service levels and on-hand inventory at the part level

Smarter Analytics:

- *Data Collection*: data extraction, transformation and loading/staging (ETL) to establish accurate data requirements along with operational definitions
- *Visibility Management*: set up and production of standardized reports for monitoring and controlling on-hand inventory at plant, planner, and part levels. This was done to track excess inventory, inventory aging, part lead time variance and monitoring performance
- *Inventory Classification*: multidimensional inventory segmentation to implement a 3-tier customized replenishment strategy (forecast-based, ROP/SS and Min-Max)
- *Inventory Optimization*: based on the classification drove inventory "right-sizing" by balancing inventory in critical SKUs over aged ones

Smarter Technology:

- *Inventory Optimizer*: implemented Genpact propriety cloud-based solution for demand forecasting, inventory optimization and visibility management

- *System Integration*: seamless integration with existing mainframe through automated bi-directional ETL process

Business impact delivered

Financial Impact	<ul style="list-style-type: none">• Improved Customer Service levels with 85% reduction in Stock outs saving huge Penalty Charges from end customer• 30% reduction in Aged Inventory• 30% reduction in Ordering cost• 25% productivity released towards customer service activities i.e. reduce administrative time of the field staff for more "face-time" with the customers
Operational Performance	<ul style="list-style-type: none">• Standardized processes across other global equipment plants, leading to higher ROI from technology/ERP investment• Enabled better collaboration with client's supply chain partners• Increased visibility into obsolete, non-moving and slow-moving inventory

Road ahead

The successful implementation of inventory optimization solutions helped us strengthening the existing relationship with client and set up a robust road map to:

- Increase the scope of centralized managed base from 15% to 50% of the SKU base
- Heuristics driven inventory planning and policy setting for SKUs where statistics fail e.g. highly intermittent demand SKUs
- Warehouse space / bin sizes constraints being modeled into inventory planning parameters like MOQ and ROP
- Tolerance limits to be defined to reduce number of small changes suggested

About Genpact

Genpact Limited (NYSE: G), a global leader in business process management and technology services, leverages the power of smarter processes, smarter analytics and smarter technology to help its clients drive intelligence across the enterprise. Genpact's Smart Enterprise Processes (SEPSM) framework, its unique science of process combined with deep domain expertise in multiple industry verticals, leads to superior business outcomes. Genpact's Smart Decision Services deliver valuable business insights to its clients through targeted analytics, reengineering expertise, and advanced risk management. Making technology more intelligent by embedding it with process and data insights, Genpact also offers a wide variety of technology solutions for better business outcomes.

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