

Streamlining Production Processes and effecting Throughput Improvements for a leading Metals Manufacturer



SITUATION

The customer was facing problems in determining the right inventory levels for its minting operations. Also, the production planning process followed on the floor was obsolete. In the face of growing competition, not having a process oriented production planning system was costing the customer heavily in terms of costs and on time delivery

IMPACT

Without proper inventory control and management system the customer was finding it difficult to respond to the changing needs of its clients. While maintaining less inventory levels could affect productivity, having levels in excess could push up holding costs. Additionally, with no proper production parameters the production planning system had to grapple with bottlenecks thus impacting overall production efficiency and order lead time

RESOLUTION

After a thorough assessment of the customer's IT infrastructure, ITC Infotech mapped the Stock Keeping Units (SKU's) into product families and assigned machines to respective families. The solution took into account historical sales patterns to determine optimum inventory levels. Our team of consultants also determined key production planning parameters like bucket size, horizon, transfer batch size etc which led to creation of workable solutions for improved execution of production plan

The Customer

The customer is a leading supplier of gold bars to the world's wholesale and retail market. Headquartered in Switzerland, the company produces over 400-metric tons of metal annually.



The Need

The customer was using traditional spreadsheet software to estimate ore quantities to be produced on the shop floor. This cumbersome method of production planning for its 900 Stock Keeping Units (SKU's) was not yielding desired results. Furthermore, the sub optimal process of production planning with little consideration to parameters like production bucket size, planning horizon, transfer batch size, change over time, routing, demand seasonality and capacity utilization was causing the planning process to go haywire. All this led to piling up of inventory and high order lead times, consequently making production planning an un-manageable task. In the face of rising global demand, there was an urgent need to introduce lean cost-saving practices. So, the customer sought the assistance of ITC Infotech's Business Consulting Group (BCG) to take a fresh look at its existing production planning process and streamline it to maintain optimum inventory levels.

The Solution

The team of consultants from ITC Infotech's SCM Practice partnered with the client to understand the customer's production process. The team was involved from conceptual design to implementation in Oracle and production shop floor. With extensive use of frameworks such as Theory of Constraints, Lean-Sigma etc the team determined various production planning parameters for optimal production plan before establishing a 'process oriented' production planning system.

The engagement involved the following activities:

Mapping SKUs to Product Families

The team first analyzed the historical demand data basis which all SKUs were mapped with their process routings. The process involved developing a detailed product-process map leading to creation of product families with dedicated machine to each product families.

Determining Key Production Parameters

To help the customer streamline its production process the team set about determining the key production parameters. These included identifying production bucket size, planning horizon, designing transfer batch size after considering constraints like change over time, process batch size, demand seasonality and capacity utilization.

The solution included implementation of production planning process in Oracle application (Advanced Supply Chain Planner) using the determined production planning parameters.

Creating Workable Solutions for Production Floor Issues

The team also helped the customer determine ideal inventory levels to support daily production plan. Complex process routings were studied in detail to understand the bottlenecks in implementing the production plan. Concepts of theory of constraints, lean and six-sigma were used extensively to design the solutions. The team is now working on creating an implementation plan for these solutions.

Business Benefits

- Reduction in inventory levels by 20-30%
- Reduction in Work in Progress inventory in minting operations by 25-30%
- Improvement in delivery compliance of chosen product family by 10-15%
- Significant enhancement in the competency of the production team

ITC Infotech's Business Consulting Practice

The Business Consulting Group (BCG) at ITC Infotech is a converging point for business & IT solutions. We aim to transform business performance, bringing a strategic perspective on process improvement and IT enablement. Our team blends domain experts and consultants, bringing unique capabilities to discover and resolve business concerns of the day.

Our expertise spans Consumer Goods, Retail, Process Industry, Logistics & Transportation, across key business functions such as product development, production, supply chain management, sales and Marketing management, field force management, and customer relationship management.

For more information, please write to:

contact.us@itcinfotech.com

www.itcinfotech.com