Supply Chain Analytics Implementation during Business Transformation

To remain competitive in today’s global markets, organizations need to develop integrated supply chain model to reduce costs and time to market. While supply chain transformation programs address business processes and integration challenges, value from supply chain transformation programs can be fully realized by building Analytics that is in line with strategic business objectives and in alignment with new supply chain processes. The case study describes BI Analytics Implementation during a supply chain transformation program at a leading manufacturer of contact lenses and lens care products. The analytics led to operational efficiency and significant reduction in supply chain costs delivering quick return on investment.
Customer Scenario

The customer is a leading manufacturer of contact lenses and lens care products with operations in 30 countries. The customer wanted to undertake supply chain transformation in Asia Pacific region to address the following challenges:

Business Challenges

- No standardization of Production Planning and Execution processes and no standardization of key performance metrics.
- Poor visibility to inventory resulting in high inventory costs
- High production cost and high yield variance across plants in APAC
- Intercompany transfer and billing process was not automated leading to backorders issues

Technology Challenges

- Numerous legacy and reporting systems
- Over 1000 reports but limited analytics to give visibility to decision support systems
- Data redundancies and inconsistencies due to poor design of data warehouses
- High cost of ownership
- Master data management issues resulting in poor quality of reports

The transformation program had objectives to harmonize and re-design supply chain processes and give visibility to key supply chain performance metrics and leading indicators. The following areas were identified as focus areas for the program:

- Standardization of Production Execution processes and analytics
- Consolidated BI system to deliver ‘single version of truth’
- Deliver analytics in areas of Inventory Management, Production Planning and Execution, Order to Cash processes and Spend Analysis

Infosys Solution

Infosys used its Supply Chain Analytics Framework to design and implement the analytical solution. The business intelligence team worked closely with business and process teams to understand business processes and strategic business objectives. Infosys used SCOR model to identify key performance indicators and metrics for improving supply chain efficiency and reducing costs. This helped in building re-usable and scalable architecture to implement the analytics solution. This also served as the global template for implementation in other geographies. The key solution elements involved:

Define Strategy

With process analysis, stakeholder interview, strategy and business objectives were defined. Infosys activities in this phase included:

- Analysis of As-Is process and systems
- Information architecture and delivery strategy for global convergence
- Tenets for standardization of KPIS and building global reporting template solution
- Framework for user workshops

Converge Towards Strategy

In line with strategic objective, the To-Be processes and global template were developed. This was completed taking into consideration industry best practices such as SCOR model and other supply chain framework. The activities included

- Define level 1, 2 and 3 KPIs in identified business processes - Production Planning and Execution, Inventory Management, Purchasing and Intercompany Sales
- Creating framework for user workshops
- Conducting user workshops to finalize KPIs and other reporting needs aligning to strategic objectives
- Number of reports/dashboards rationalized from 1000 to 75.
• Using process maps, define high level logical data model
• Review of processes to ensure that processes support capture of data needed for strategic reporting and analytics in transactional systems

Solution Definition
The solution was finalized in view of flexibility and scalability. The model was developed to help analyze futuristic business needs. Infosys design framework was used for defining robust solution. Key activities included -
• BI data model based on process maps and not just limited to ‘current requirements’
• EDW design with layered architecture - Staging, Integration, Regional and Global layers
• Scalable data architecture with regional and global reporting, logical and physical partitioning
• Load strategy to support on time data availability
• Design of in-built data quality checks via data reconciliation/balancing

Implement and Measure
The solution was implemented with proven accelerators. The data quality monitoring tools were also delivered as part of solution. Also, the ability to measure business impact and check effectiveness of solution was provided. Highlights of solution during the phase included -
• Infosys accelerators to reduce development efforts and time
• Load strategy to support ‘on time’ data availability
• Upfront performance consideration
• Revamp of security design
Benefits to Customer

With harmonized business processes and analytics, the customer was able to significantly reduce supply chain costs. The key benefits included:

• Visibility to standardized supply chain metrics in Production Planning, Inventory Management, Purchasing and Intercompany Sales functions
• Reduced inventory levels due to better visibility
• Reduced production throughput time
• Significant reduction in yield loss during production process through better monitoring and control

In addition to business benefits, customer had scalable BI architecture and the ability to rollout the template to other plants in the globe. The consolidation of BI systems helped in data quality and became the foundation for global reporting.