Motherson Technology Services Analytics at work

for a major polymer products company. enabled a single View of global suppliers with estimated savings of 2% - $6 million annually with the implementation Factory Analytics Platform using MDM (Mobile Data Management) solution

About the Customer

The client develops and manufactures plastic parts and highly integrated modules for the automotive industry. As specialist in cockpits, door panels, bumper modules and innovative plastic vehicle body parts, the client has successfully established a footprint in Europe, North America, South America and Asia supplying well-known automotive manufacturer. Originally founded in Bötzingen, Germany in 1959, client is now a global enterprise that offers its employees exciting projects and outstanding development opportunities.

Business Challenges

The client was facing challenges to determine, and control spend across its manufacturing locations. The raw material cost varied from plant to plant. In an operation where raw materials account for almost 65% of all costs, there were plants that were losing money although they were making the same product.

The answers to the following questions could not be found accurately:

- How much do we buy from a supplier across my manufacturing locations

- What is the standard price of a part across my manufacturing locations

- How much was wasted in scrap and productivity Part of the problem was that data was spread in multiple formats across multiple systems. Consequently, the Management was not confident of its asset utilization & equipment efficiency.

Our
Solution

Motherson Technology Services implemented a Mobile Data Management (MDM) solution that allowed data to be fed into our Factory Analytics platform. With this implementation, we allowed a digital transformation to take place making the client a true Industry 4.0 company. We built a custom analytics platform on a Microsoft BI stack that connected to their existing Manufacturing Execution System (MES). We augmented data collection points wherever necessary with RFID and optical readers. All this data was fed real time using an integration tool into a BI platform that provided detailed comparison by vendor, parts and locations that allowed global procurement contracts to be negotiated.

We were able to do this without having to move the data into an Enterprise Data Warehouse. This saved a lot of time and money.

- Dashboards that received data updates in real-time were displayed on the plant floor at various stations

- Production analytics showed us OEEE and machine utilization plus the total cost of quality

- Organized all purchase, invoice data from multiple units and companies into a single view for the procurement group

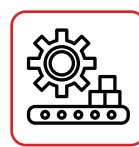- Created a logical supplier hierarchy and group product view

Benefits

Motherson Technology Services Analytics solution was able to provide scalability up to 10,000+ users per client, 20% annual data growth, new system was able to handle the data stream with the velocity of 100 million records per hour. Enhanced data analysis capability, performance, storage optimization driving revenue up by 30% YOY.

- Allowed identification of bottlenecks in the assembly and paint process

- Cost tracking, centralized view of global spend, suppliers and inventory. This allowed for negotiations for global procurement

- Clear definition of maintaining inventory levels of both black and painted parts and mechanisms for optimum reordering and demand forecasting of raw materials

- Using a MDM tool allowed us to cut development time and ongoing maintenance cost considerably

- This enabled data to be made available for analysis

- Management was able to get a Unified view of the complete spend across all suppliers, subsidiaries and plants as well as purchase price variance

- The rest of the factory analytics platform enabled a good overview of inventory of produced/ assembled parts and allowed for performance measurement

Reduced costs of raw materials by 3% (this was in the millions of dollars)

Provided complete overview of production and spend across all locations globally

Single View of global suppliers with estimated savings of 2% - $6 million annually

About Motherson Technology Services Limited

Founded in 1975, Motherson Group is an industry leader and one of the world's largest manufacturers of components for ther automotive and transport industries. The group's diversified portfolio makes it a complete solutions provider across the globe. Motherson Group serves its customers with a wide array of products and services through multiple business divisions including wiring harness, vision systems, modules and polymer, technology & software, aerospace, health & medical, logistics, retail and metal products. Motherson Technology Services is a global technology company that offers a consulting-led approach with an integrated portfolio of industry leading solutions that encompass the entire enterprise value chain. Our technology-driven products and services are built on two decades of innovation, with a future focused management philosophy, a strong culture of invention and co-innovation, and a relentless focus on customer-centricity. An SEI CMMI Level 5 company, we have delivered best-in-class services to 430+ clients in 41+ global locations across all continents. We are a business division of Motherson Group, one of the largest manufacturers of components for the automotive and transport industries worldwide with 150,000 employees across the globe.