

Case Study

ERP System Reengineering and Manufacturing Execution System Implementation

A digital transformation success story for the US Apparel Manufacturing industry

PROJECT OVERVIEW

A prominent "Made in USA" Apparel Manufacturer was seeking a digital transformation partner to enhance efficiency, agility, and profitability. Outdated MES and ERP systems were hampering efficiency and affecting business growth. The client needed a scalable solution for actionable reporting and real-time data visualization.



Capability

Digital
Manufacturin
g



Industry

Manufacturing



Country

USA

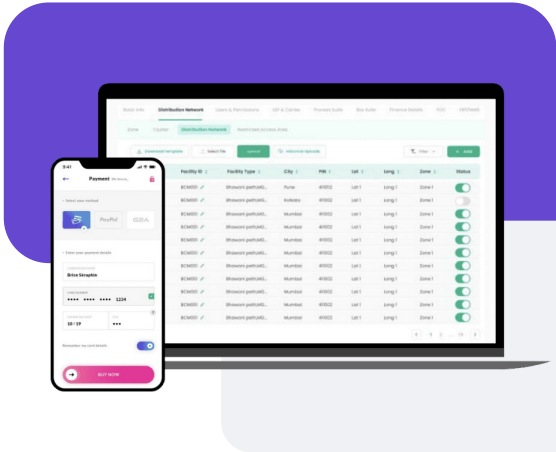
Pain Points

- Siloed data and lack of real-time insights adversely impacted the ability to respond to market shifts.
- Lack of security updates exposed systems to potential breaches and unauthorized access.
- Legacy technology was unable to keep up with modern demands and resulted in slower processing speeds.
- Compatibility issues with newer devices and software versions, hindered user adoption.
- Limited or no support from vendors for troubleshooting issues in obsolete solutions.
- Outdated UI/UX designs failed to meet the expectations of modern users, leading to user dissatisfaction.

Tactical Approach

In our collaborative journey of digital transformation in manufacturing, we navigated the shift from legacy technologies like Microsoft Excel with VBA, MVC, and SQL to emerging technologies like NET 5.0, Angular, and Material Design. This involved:

- **Development of an MES**
Our team spearheaded a modern MES to integrate suppliers, staff and distributors into a single platform. The modernized system unified inventory, production, orders, supply chain, and accounting data to streamline processes, increase efficiency, and enable informed decisions.
- **Integration and Connectivity**
We facilitated interoperability with existing enterprise systems, such as ERP and SCM, through standardized interfaces and APIs. By enabling bi-directional data exchange and workflow orchestration, our solution ensured end-to-end visibility and synchronization.
- **Migration to Azure Cloud**
Our team spearheaded a modern MES to integrate suppliers, staff and distributors into a single platform. The modernized system unified inventory, production, orders, supply chain, and accounting data to streamline processes, increase efficiency, and enable informed decisions.
- **Power BI Integration and Data Visualization**
We leveraged Power BI for real-time access to key business metrics. Additionally, we implemented reporting capabilities to generate custom reports targeting specific KPIs.



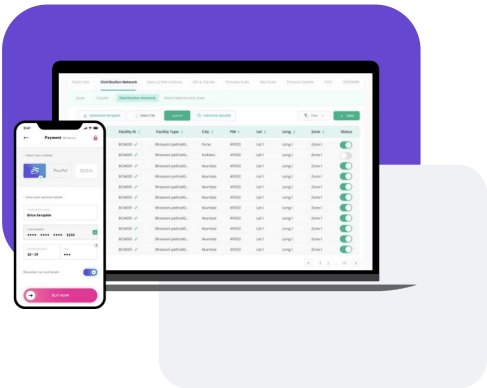
- Operation Dashboards:** Provides a quick overview of machine availability, production output, and quality control issues.
- Performance Reports:** Analyses production efficiency including factors like setup times, cycle times, and downtime.
- Quality Control Reports:** Tracks defect rates, identifies trends, and pinpoints areas for improvement.
- Inventory Management Reports:** Monitors stock levels to optimize ordering and minimize carrying costs.

Quantifiable Outcomes

Our involvement in the **legacy ERP & MES system modernization for apparel manufacturer** ensured their systems were compliant, secure, efficient, and agile. Here are the key features and benefits of the solution:

Enhanced Supply Chain Visibility to Mitigate Risk

Our MES solution enhanced supply chain visibility with capabilities to track raw materials, monitor production progress, and optimize delivery schedules on one unified platform. This real-time transparency facilitated smoother coordination between suppliers, distributors, and partners.



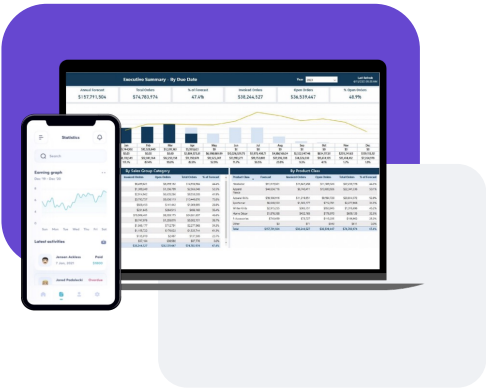
Inventory Optimization to Improve Stock Management

The MES and ERP integration enabled precise inventory management, minimizing excess stock and reducing carrying costs. Accurate inventory tracking ensured optimal stock levels, preventing stockouts and overproduction.



Production Planning and Scheduling

Leveraging advanced algorithms and real-time data integration, we enabled dynamic production scheduling, resource allocation, and workflow optimization. This ensured seamless coordination between production activities, minimized downtime & maximized throughput.



Estimated Delivery Date Calculation

We integrated predictive analytics and historical data to forecast production lead times, considering factors such as material availability, production capacity, and order complexity. Precise calculations allowed the client to optimize resource allocation.

TECHNOLOGIES & TOOLS



Transformative Impact

10 to 7 Days

Reduced processing time from 10 to 7 days for production planning, inventory management & order processing.

90% to 98%

Enhanced data accuracy from
90% to 98%, minimizing errors
and maximizing process
reliability.v

8% to 5%

Reduced defects from 8% to 5%, enhancing product quality and ensuring customer satisfaction.

PROJECT SNAPSHOTS

[illegible]

ABOUT RISHABH SOFTWARE

We are a global provider of enterprise-grade web, mobile, cloud, and analytics solutions. As ISO 9001 and 27001 certified software development company, we have two decades of service excellence delivering 1000+ successful projects globally, including the USA, UK, Europe, Middle East, and Australia.

 sales@rishabhsoft.com

+1-201-484-7302

