

Radiaant Integrates with Rawcubes MES 4.0



Introduction

Radiaant, a Tier 1 Vendor for Large Retail Brands, is one of the most distinguished export houses, known for manufacturing premium home textiles, furnishing products, and incredible apparel across the globe. With global distribution centers and clientele like Walmart, Zara, Target, Kohl's, West elm, and many more, they cater to multi-volume orders with committed deliveries.

Their vision is to be among one-of-the-most valuable and trusted home furnishing and apparel export houses for every market segment and deliver to the global geography by exceeding its customer's expectations.

Industry - Manufacturing

Use Case- Manufacturing process transformation and next-generation data management with Rawcubes



"We saw a disconnected view of our data and the team worked in silos due to which we cumulated a lot of unreliable manual and faulty processes. Our decision-makers struggled to get the insights needed to build effective decisions and future strategies."

said, Leadership at Radiaant

Challenge

The manufacturing industry is dynamic; the materials, vendors, line capacity, and quality process change with every order at times. Radiaant has journeyed from a startup to a global brand management leader. They commenced their journey with 20 employees and 14 machines and have today become an organization of repute with 7 home textile and garment manufacturing units equipped with global-level technology and over 3000 employees.

Disconnected view of the manufacturing process due to legacy systems

As the client's business grew, so did their processes and data complexity. Digitalization was no longer an option but a necessity, and with outdated forms of technology, it created data silos that left their teams with inaccessible data and isolated decision-making. With hundreds of suppliers, global distribution centers, and clientele, they also faced challenges maintaining infrastructure, licensing costs, and constantly enhancing SAP. Also, ingesting key data sources in a structured and unstructured format was not optimal for advanced data analytics causing limited scope of innovation. They neither had scalable nor flexible architecture due to on-premise infrastructure, making collaboration across geographies, business operations, & vendors at scale nearly impossible.

The disconnected data from the order, procurement, production, and quality led to difficulty in calculating production performance, procurement efficiency, and quality checks in real-time. These un-integrated systems highly affected productivity and inflated the team's working hours.

As a result, with its complex, expensive and cumbersome manufacturing systems, the client fell short of meeting increased customer expectations; and the 360' view of their order lacked enhanced data analytics solutions for additional value add.

Leadership at Radiaant said, "We saw a disconnected view of our data, and the team worked in silos, due to which we cumulated a lot of unreliable manual and faulty processes. Our decision-makers struggled to get the insights needed to build effective decisions and future strategies."

Solution

Unified software and services that streamlined manufacturing processes & data analytics into operational excellence

As Radiaant went through various POCs, the deciding factor came down to these questions, "How can we build data-driven modules missing in our existing ERP systems by unifying data captured from order, procurement, production, machines, and quality control systems? How can we prevent non-centralized inventory and frequent stockouts necessary for order fulfillment? And how can we enhance our overall operational efficiency with our production floor and quality control checks? Finally, How can we give a real-time view to order managers and executives to build strong partnerships and business pipelines?"

After various rounds of POCs with different vendors, Radiaant chose Rawcubes because of the software plus services approach we proposed. They understood that unifying all the different operations could not be handled by any one application or just service providers. To tackle this challenge, it required out-of-the-box thinking and thought leadership for their precise business problems. We spent the next 18 months setting up and deploying their digitalization journey of smart manufacturing with end-to-end manufacturing execution systems (MES) and an integrated data management software tailored uniquely for fast-paced manufacturing.

Phase I : Reviewing the state of business with a diagnostic assessment

Our team reviewed Radiaant's existing business processes and technology. As the manufacturing landscape is very dynamic given the fast fashion trend, the client needed quick real-time data insights from their manufacturing processes. Since they had a global clientele, we identified which process needed digital manufacturing augmentation and also understood opportunities for automation. After evaluating their existing ERP, we assessed the modules they used, to track their supply chain process. Further, we defined and developed a technical solution architecture for them to support their current and future needs. As we analyzed their existing and tedious process of business user engagement, we examined their process flow, the product life cycle, and the gaps that hampered their manufacturing process.

After a successful assessment, we made a road map for them, outlined an implementation plan, and shared a compelling PoC to move forward.

Phase II : Champaigning a proof of value with automation

At the beginning of Phase 2, we implemented Rawcubes' DataBlaze as the data integration backbone for Radiaant.

Radiaant was operating on SAP for material management & finance management, and though SAP worked well for them in process control, they received multiple orders and required multiple deliveries; the entire supply chain needed a very robust software that could provide them with real-time data at every step. So we automated and integrated different modules and external EDI feeds into SAP order management, saving manual efforts, time, and costs.

Further, we created dashboards and a data layer with the data we had in the data lake from all their applications. As a next step to enhance the manufacturing process, we developed IoT devices to capture data from production lines. This enabled them to track activity at every stage of the supply chain, discover issues, and mitigate them in real time.

Phase III : Plant-wide data-driven manufacturing execution system

With DataBlaze, they could onboard, discover, and connect data from hundreds of sources. Thousands of relationships between all the data could be consolidated into an industry 4.0 standard Knowledge Graph which truly differentiates Rawcubes MES system. This enabled a knowledge-graph-based system to help key stakeholders and executives, who tracked the order, get real-time visibility and alerts of the supplies, production, quality check, and shipment at an order level.

Further, we enhanced the shop floor with real-time production performance display and monitoring available anywhere from the top floor to each production line. No more siloed data and lack of visibility of crucial information; the production heads and floor managers received reliable data every single time. Up next, we analyzed their equipment parameters and implemented total quality management to monitor key equipment proactively. We automated inspection for raw material, semi-finished, and finished goods to minimize downtime and optimize delivery performance. Even the procurement leaders were equipped with real-time data as we eliminated data silos between material requirements, suppliers/vendors, and the production floor, so there was never a shortage of raw goods, no matter how many orders were being processed. We even built accelerators that integrated with external systems like MS Dynamics, SAP, Oracle, SAGE, etc., for a truly seamless experience for business users.

80%

Higher efficiency was recorded for material acquisition

60%

Total quality was significantly improved by 60%

\$1M

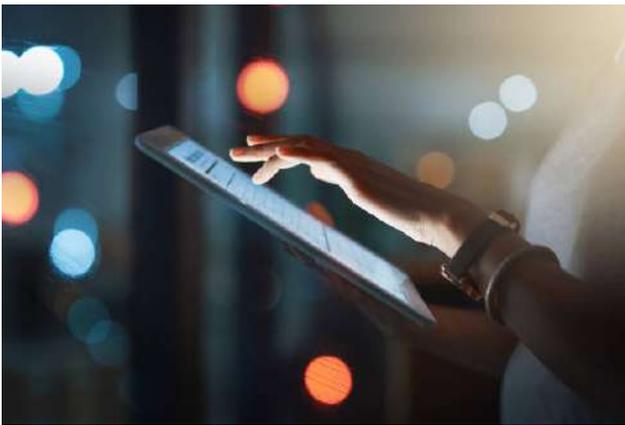
Total savings of over \$1M year on year

Results

Radiaant implemented Rawcubes' DataBlaze and MES 4.0 across several phases, which resulted in the total transformation of all processes, teams, and systems across many factories and warehouses. Some of the significant results noted are:

- 80% higher efficiency was recorded for material acquisition, which resulted in lesser stock-outs, lower inventory levels, and accurate inventory at all times.
- Total quality was significantly improved by 60% with fully integrated quality checks from raw, semi-finished, and finished goods with zero errors.
- 20% increase in throughput/ uptime with real-time visibility across end-to-end operations, helping them meet their customer's defined KPIs
- Remarkable reduction of 80% for manual data analysis activities with lower data science dependency with our product DataBlaze
- Total savings of over \$3M year on year with services and product engagement by rationalizing applications, process, and resource allocation optimization

Future with Rawcubes



▶ Rawcubes is the catalyst for next-generation data-driven manufacturing. To navigate this ever-so-complex environment quickly, we shared how our products, DataBlaze and MES 4.0, are helping Radiaant accelerate its operational quality.

Our focus for Radiaant wasn't just operational efficiency but building a data-driven digital culture with alignment and collaboration of all the teams, from the top floor to the shop floor in the enterprise, which is key to the success of transformation initiatives and how operations can further achieve success.

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We curated data-driven modules that were missing in the client's existing ERP systems by unifying data captured from order, procurement, production,

machines, and quality control systems that assisted the teams to meet their dynamic customer expectations. Our effective procurement and materials management shared a non-centralized inventory view without stockouts and a real-time view to order managers and executives to build strong partnerships and business pipelines. Automated analytics, reports, and alerts displayed role-based content at the shop floor and plant management and integrated MES with their existing warehouse conveyor system to upload the finished and packed material.

"With Rawcubes, Radiaant has seen exponential growth, and now we have bigger goals, further enhanced operations, and better ways to cope with challenges."

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