



ERP Implementation Goes Awry, Takes a \$5.9 Million Bite Out of Profits

How One Company Bounced Back

#### Client

Manufacturer and marketer of highly customized products through retail outlets worldwide.

### Challenge

Product wasn't going out the door after an ERP launch. Overtime, defects, and expediting were killing profits causing a rapid loss of customer confidence and market share.

### **Solution**

Rapidly realign to customer needs by improving: scheduling, shop floor simplification, order-entry, and inventory management. Visual management and disciplined daily management processes accelerated and sustained the process changes in each of these areas.

#### Results

Improvements completed in 12 weeks — rebuilding its reputation and recovering lost market share. Past due orders reduced 90%, WIP inventory down 50%, order entry time down from 10 days to < 2 days, and order-entry head count back to original staffing levels.

It wasn't the first business unit in the company to implement the corporate-mandated ERP system. Managers knew what to expect, or thought they did. Several years ago the company had even snapped up a competitor financially weakened by a botched ERP implementation, so managers understood that there could be risks. Their IT consultants assured everyone that changing over to the new ERP system—even though their products were fairly complex and highly customized—would go smoothly. What could possibly go wrong?

ERP systems are supposed to streamline processes so that businesses run faster, smarter and more profitably. And they usually deliver, sooner or later. In this case, a few weeks after the new ERP system was turned on, the business could "barely ship product," in the words of one executive. Internal quality defects jumped from less than 4 percent of orders to more than 11 percent. Needing to ship around 650 orders per day, past due orders ballooned from around 500 to over 7,000, prompting a number of disgruntled customers to cancel orders and find alternative suppliers.

All of these issues added up. Unbudgeted costs included: external consultants, additional customer service reps, manufacturing, customer service and order entry overtime, higher scrap rates and premium freight.

In total, the ERP implementation issues were costing \$118,000 per week—\$5.9 million per year—and were reducing margins by 3.6 points. Management cited the unexpected costs as a drag on earnings in the company's quarterly financial report to shareholders.

# **Righting the Ship**

Over an intense 12-week period, a team of TBM consultants worked with the company's executives, operations managers and IT team members to turn things around. Their objective was—at minimum—to return the business to its performance levels prior to the ERP system implementation by reducing transaction complexity, simplifying and standardizing business and production processes, training and certifying all system users and locking down information and material flows.

At a high level the TBM team followed the DMAIC process. Starting with an overview of the current situation, they worked with the client's managers to define the current problems, measure and analyze the data, establish quantifiable recovery goals and create detailed project plans to fix the situation. A steering committee, which included high-level executives and a TBM representative, met every week. They monitored the progress of the four improvement teams assigned to each major problem area.

"The commitment by the senior management team at the company was unquestionable," recalls one of the TBM consultants on the team. "Everyone attended the regularly scheduled steering committee meetings and participated in the 12-week recovery plan every day as needed."

The underlying problem, as indicated by the doubling of the company's order-entry personnel, was that customer service people couldn't enter orders quickly or accurately. That's a big issue when every product you ship must be customized in some way. "Such complexity is not what ERP systems were traditionally designed to manage," he notes.

After three months, the improvement plans had been executed and the organization was in full recovery mode. Testifying to the culture of the organization, there was virtually no pushback against the changes that had to be made to improve the company's performance.

"The level of commitment was very obvious at all levels throughout the organization. The prevailing attitude was and is that they would do whatever it takes to serve their customers better," he added.

To maintain forward progress, TBM helped each work area implement SQDC boards (safety, quality, delivery, and cost) for monitoring and reporting current performance. A floor-level management process for monitoring that performance (managing for daily improvement) established a system for assigning responsibility and addressing abnormalities when they arose. The engagement also included the creation of an assessment process for key personnel using a skills matrix. Going forward the expectation is that everyone in critical roles will be required to achieve a defined skills "certification" level.



#### 1. Order entry.

There was no standard work for entering orders, which came in by mail, fax and email. Orders vary from basic to complex. Using a "perfect order" metric, which is defined as complete and accurate orders, the order-entry improvement team simplified, standardized and error-proofed the order entry process.

#### 3. Scheduling.

In contrast to the previous ad hoc approach to production scheduling, the new system allows optimization by customer types. It looks at due dates and prioritizes expedites using a visual process (colored folders) and a scheduling wheel.

### **3.** Shop floor.

There was limited process documentation, standard work, or visual management. The shop-floor team simplified and standardized production processes, and created work instructions that everyone could understand. Day-to-day problemsolving tools helped supervisors drive a variety of significant improvements in their areas.

#### 4. Inventory management.

Incompatibilities between the new system and the company's legacy system contributed to inventory increases and replenishment failures. A comprehensive review of all procured materials re-established replenishment types, which improved material availability and allowed inventory levels to be reduced significantly.

# The Results Speak for Themselves

- · Past due orders are down over 90 percent, to less than 500.
- Order-entry errors are down 22 percent.
- The average time to enter an order is now less than two days-and fallingcompared to over 10 days.
- Order-entry productivity is up 39 percent, with the total number of people needed to enter orders reduced from 38 to 23.
- · Internal defect rate dropped by 50 percent, back to pre-ERP system levels in most areas, and by 75 percent in one critical production area.
- · Work-in-process inventory has been cut from six to three weeks.

On the cost front, annual operating costs have been reduced by millions of dollars, and are well on their way back to pre-ERP implementation levels, which will return \$6 million to the bottom line.

"Within weeks of implementing the SQDC boards," recalls the TBM engagement manager, "I was in the facility when one of the area managers presented the performance of his area to the CEO. He did better than people at many organizations who have been doing it for years. That's a sign of a company with talented people who own the process, own the problems, and own the solutions. The CEO thanked him and his team personally for their commitment and dedication."

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— TBM Engagement Manager

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