Summit Electric Lights Up with a New ERP System

CASE STUDY

Summit Electric Supply is one of the top wholesale distributors of industrial electrical equipment and supplies in the United States, with 500 employees and nearly $358 million in sales in 2011. Summit operates in four states and has a global export division based in Houston, a marine division based in New Orleans, and a sales office in Dubai.

Summit distributes products that include motor *controls, wire and cable, cords, lighting, conduit and* fittings, wiring devices, support systems and fasteners, outlet boxes and enclosures, and transformers and power protection equipment. The company obtains finished goods from manufacturers and then sells them to electrical contractors working on projects ranging from small construction jobs to sophisticated industrial projects. As a distributor, Summit Electric Supply is a "middle man" on the supply chain, and must be able to rapidly handle a high volume of transactions and swift inventory turnover.

Since its founding in 1977 in Albuquerque, New Mexico, Summit has grown very quickly. Unfortunately, its homegrown legacy information systems built in the 1980s could not keep up with the business. One legacy system was for sales entries and purchase orders and another was for back-end reporting. Integration between the two systems was done manually in batches. The systems could only handle a fixed number of locations and limited the range of numbers that could be used on documents. This meant that Summit's information systems department had to use the same range of document numbers over again every few months. Once the company found it could no longer process its nightly inventory and financial updates in the amount of time that was available, the systems had reached their breaking point. A new solution was in order.

Summit started looking for a new enterprise resource planning (ERP) system. This would prove to be challenging, because the company's legacy systems were so old that the business had built many of its processes around them. A new system would require changes to business processes and the way people worked.

Summit also found that most of the available ERP software on the market had been designed for manufacturing or retailing businesses, and did not address some of the unique processes and priorities of the distribution industry. Summit needed a system that could handle a very large number of SKUs (stock-keeping units, which are numbers or codes for identifying each unique product or item for sale) and transactions, very short lead times for order processing, inventory distributed in various models, products sold in one quantity that could be sold in another, and no-touch inventory. Summit *handles some products that are shipped directly* from the manufacturer to the customer's job site.

Scalability and inventory visibility were Summit's top requirements. The company needed a system that would handle orders and inventory as it continued its rapid pace of growth. In the distribution business, the lead times for fulfilling an order can be only minutes: a Summit customer might call to place an order while driving to pick up the order, so the company has to know immediately what product is available at what location.

After extensively reviewing ERP vendors, Summit selected ERP software from SAP because of its functionality in sales and distribution, materials management, and financials, and its knowledge of the distribution business. Summit visited other electrical distributors using SAP, including some of its competitors, to make sure the software would work in its line of business. Summit was able to go live with its new ERP system across 19 locations in January 2007.

Nevertheless, Summit still had to customize its SAP software to meet its unique business requirements. Most SAP delivery and material scheduling functions were designed for overnight processing, because many industries have longer lead times for order fulfillment. Waiting for overnight inventory updates would significantly delay Summit's sales. Summit found it could solve this problem by running smaller, more frequent updates for just the material received during the day, rather than running big inventory updates less often. This provided more timely and accurate snapshots of what was actually available in inventory so that orders could be rapidly processed.

Wire and cable are one of Summit's most popular product categories. Summit buys these products by the reel in lengths up to 5,000 feet and then cuts them into various lengths to sell to customers. This

makes it difficult to determine how much of this type of inventory has been sold and when it is time to replenish. To address this issue, Summit used a batch management solution in SAP's ERP materials management software that treats a wire reel as a batch rather than as a single product. Every time a customer buys a length of wire, the length can be entered into the system to track how much of the batch was sold. Summit is able to use this capability to find which other customers bought wire from the same reel and trace the wire back to the manufacturer.

To accommodate large customers with long-term job sites, Summit sets up temporary warehouses on-site to supply these customers with its electrical products. Summit still owns the inventory, but it's dedicated to these customers and can't be treated as standard inventory in the ERP system. SAP's ERP software didn't support that way of doing business. Summit used some of the standard functionality in the SAP software to change how it allocated materials into temporary storage locations by creating a parent-child warehouse relationship. If, for instance, Summit's Houston office has several temporary on-site warehouses, the warehouses are managed as subparts of its main warehouse. That prevents someone from selling the consigned inventory in the warehouse.

Summit's old legacy systems used separate systems for orders and financials, so the data could not be easily combined for business intelligence reporting and analysis. To solve this problem, Summit implemented SAP's NetWeaver BW data warehouse and business intelligence solution to make better use of the data in its ERP system. These tools have helped the company evaluate the profitability of its sales channels, using what-if scenarios. For instance, Summit is now able to analyze profitability by sales person, manufacturer, customer, or branch. Business intelligence findings have encouraged Summit to focus more attention to areas such as sales order quotations and to supplier performance and delivery times. Management has much greater visibility into how the organization is operating and is able to make better decisions.

Summit's SAP software also produced a significant return on investment (ROI) from automating sales tax processing and chargebacks. In the distribution industry, chargebacks occur when a supplier sells a product at a higher wholesale price to the distributor than the price the distributor has set with a retail customer. A chargeback agreement allows the distributor to bill the manufacturer an additional contracted amount in order to make some profit on the deal.

Processing chargebacks requires a very close comparison of sales to contracts, and a distributor can have hundreds or thousands of different chargeback contracts. The distributor must not only be able to identify chargeback deals but also provide the manufacturer with sufficient documentation of the specific chargeback contract that is being invoked. Chargeback management is a large part of any wholesale distributor's profit model, and Summit was losing revenue opportunities because its chargeback process was flawed.

In the past, Summit's outdated legacy system was not able to handle the volume and complexity of the company's chargeback agreements, and reporting capabilities were limited. Processing chargebacks required a great deal of manual work. Summit employees had to pore through customer invoices for specific manufacturers to identify which chargebacks Summit could claim. They would then input the data they had found manually into a Microsoft Excel spreadsheet. Gathering and reviewing invoices sometimes took an entire month, and each month the paper copies of the invoices to give to Summit's vendors consumed an entire case of paper. By the time Summit's vendors responded to the chargeback invoices, the invoices were two or three months old. This cumbersome process inevitably missed some chargebacks for which Summit was eligible, resulting in lost revenue opportunities.

As part of its ERP solution, Summit implemented the SAP Paybacks and Chargebacks application, which was developed specifically for the distribution industry. At the end of each business day, this application automatically reviews Summit's billing activity for that day and compares it to all chargeback agreements loaded in the SAP system. (Summit's system automatically keeps track of 35 vendors with whom it has more than 6,600 chargeback agreements.) Where there is a match, a chargeback can be claimed, and the application creates a separate chargeback document outside of the customer invoice. Depending on the type of vendor, the application consolidates identified chargebacks by vendor daily or monthly, and automatically submits the information to the vendor along with the chargeback document. The vendor can then approve the chargeback or make changes, which are reconciled against individual chargeback documents.

The new system processes chargebacks much more quickly and also makes it possible for Summit to review them more frequently. Where vendors are

exchanging data with Summit electronically, Summit is able to make a chargeback claim and obtain vendor approval the same day. By fully automating the chargeback process, the company has increased its chargeback claims by 118 percent over its legacy systems, thereby boosting chargeback revenue as a percentage of sales. Summit is now able to see which vendors, customers, and products are producing the most chargeback revenue.

A key lesson from Summit's ERP implementation was not to force the new system to look like the legacy system. Not only is such customization expensive to set up and maintain, it can perpetuate outdated ways of doing business. According to Summit's CIO David Wascom, "We've done a lot to maintain flexibility (for our users), but still run within a standard SAP business flow."

Sources: "Summit Electric Supply Energizes Its ERP 6.0 Upgrade with Panaya," www.panayainc.com, accessed July 14, 2012; www.summit.com, accessed July 14, 2012; David Hannon, "Bringing More Revenue to the Table," SAP InsiderPROFILES, April–June 2011 and "Finding the Right ERP Fit," SAP InsiderPROFILES, January–March 2011; "Summit Electric Supply Drives Business Transformation Through SAP and ASUG," SAPInsider (October–December 2010), and Neetin Datar, "Summit Electric Improves Chargebacks," SAP.info, June 18, 2009.

CASE STUDY QUESTIONS

1. Which business processes are the most important at Summit Electric Supply? Why?
2. What problems did Summit have with its old systems? What was the business impact of those problems?
3. How did Summit's ERP system improve operational efficiency and decision making? Give several examples.
4. Describe two ways in which Summit's customers benefit from the new ERP system.
5. Diagram Summit's old and new process for handling chargebacks.