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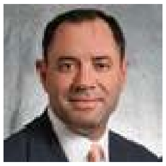

Making Working Capital Work: A Case Study

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Current recessionary times are posing historic challenges for many companies. Plunging global demand across nearly every industry has created excess capacity and devastated profits. Capital budgets have been slashed, with the reduction of working capital a priority.

AMR Research recently interviewed a global energy giant (for the sake of this case study, we'll refer to the company as GEG) that improved its cash position by optimizing its maintenance, repair, and operations (MRO) inventory levels. Through the application of analytical methods and technologies the company was able to deliver concrete results.

Global growth an issue if technology doesn't keep up

GEG is one of the largest integrated energy companies in the United States and one of the top 10 oil refiners in the world. The company has more than $100 billion in annual revenue, and operates globally.

Over the past decade, it experienced tremendous growth, both organically and through a series of M&As. The acquisitions resulted in operating multiple technologies and systems, many of which were redundant. In 2004, GEG made the decision to rationalize and consolidate on a single SAP instance as its ERP platform.

One of GEG's major upstream business units had employed for a number of years a homegrown application to set its MRO levels. This division had the largest inventory investment in the corporation. When it migrated to the new SAP instance three years ago, the homegrown inventory management application was decommissioned. The division went with an independent application and licensed Oniqua Analytics Solution (OAS) from the Australian-based firm **Oniqua Enterprise Analytics**. For nearly 20 years, Oniqua has been providing analytical applications to asset-intensive industries, enabling them to optimize their asset performance management.

Managing MRO inventory delivers double-digit improvements

GEG's division reduced its working capital associated with MRO by 10% within six months of implementation, including integration with its single instance of SAP. It continued to lower its inventory levels by at least another 10% each of the last three years, as it refined the criticality levels of spare parts.

An important note is that certain inventory levels were raised as a result of the analysis, with a goal to right-size the inventory, not simply reduce levels. Setting inventory and restocking levels was based on validation on two levels:

- Inventory managers testing OAS output and assumptions
- Validation from the maintenance organization that the assigned criticality was correct

The division found some key MRO inventory levels were kept at dangerously low levels. While overall inventory levels and working capital were decreased, right-sizing the items held reduced the overall risk profile of the business unit.

Lessons learned when going global

Based largely on the results of the upstream business unit as well as a desire to centralize on a common platform, GEG's corporate office signed an enterprise license with Oniqua for OAS in early 2008. The company is now in the process of rolling out the product to 26 separate business units.

The global implementation project is being managed at the corporate level, but has not been without issues. One unforeseen hurdle was training the teams responsible for MRO inventory. Previously, their responsibilities didn't include analysis and optimization; their primary function was to perform transactional activities, like processing stock requests.

The training involved upgrading skill sets and changing historical mindsets, working to alter the perception that the optimization analysis wasn't added work, but an activity that would reduce the number of transactions processed. The training and reeducation efforts were too problematic in some business units, so the decision was made to centralize the optimization analysis at the corporate level for those sites. The corporate goal is to complete all implementations and training by the first quarter of this year.

As companies struggle with reduced demand and tightening capital, lowering MRO inventory is an important way to strengthen the balance sheet. Many companies report that reducing inventory is the largest financial benefit of an effective enterprise asset management program—and GEG would agree. The ROI of its OAS investment, based on the operational results to date, is expected to exceed 400%. In this economic climate, results of that magnitude are impossible to ignore.

As always, I look forward to your ideas and feedback—bpolk@amrresearch.com.