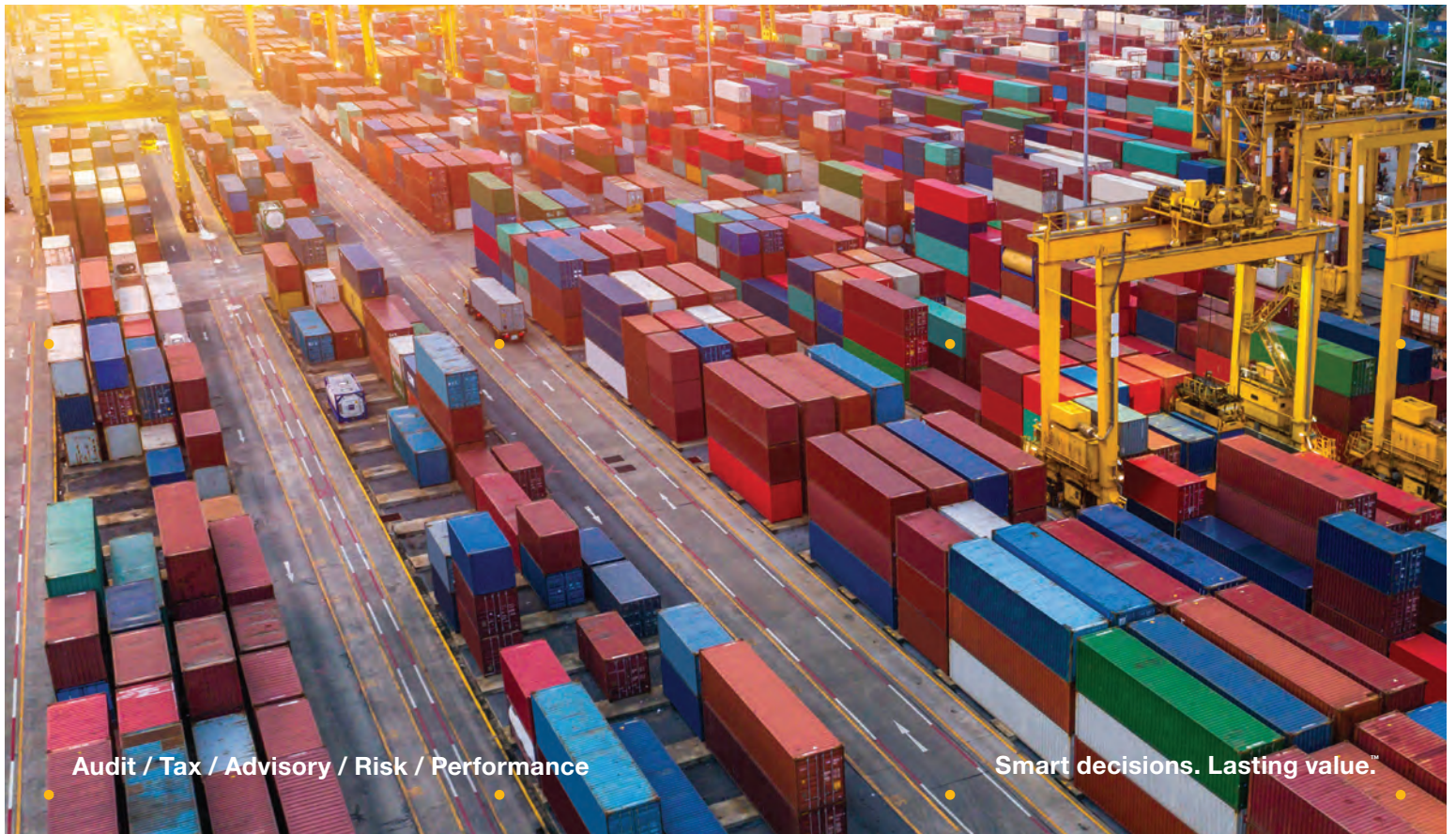


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# Optimizing Working Capital in Private Equity M&D Organizations

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Effective management of working capital in manufacturing and distribution (M&D) businesses can be a difficult challenge for private equity groups (PEGs). Best-in-class performers are finding new technology applications can help them overcome the limitations of conventional enterprise resource planning (ERP) software by mining and analyzing data held in their systems. These tools can help them manage working capital more effectively and contribute meaningfully to improved investment returns.

**The Importance of Improved Working Capital Management**

While most private equity management teams recognize the importance of effective working capital management in principle, many do not fully appreciate the potential benefits that can be achieved by optimizing working capital. All three of the major components of working capital – inventory, payables, and receivables – offer many opportunities for rapid, significant, and long-lasting improvements in financial performance.

For example, reducing inventory levels has a favorable impact on cash levels and typically can produce interest savings as well because the company's investment in inventory will be lower. But beyond such immediate improvements, truly optimizing working capital also can produce long-term improvements that ultimately contribute directly to a better return for investors.

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Potential long-term improvements include a sustained reduction in handling costs, improved service levels, faster order fulfillment, and fewer write-offs of excess or obsolete inventory. In many cases, optimizing inventory levels also can mean fewer management distractions as the company spends less time and fewer resources developing strategies for getting rid of slow-moving inventory through closeouts or other tactics.

Achieving such long-term improvements involves much more than merely making a month-end or year-end adjustment in order to lower inventory levels. Short-term adjustments can produce some short-term gains but also can generate long-term adverse impacts on customers, suppliers, and internal operations. On the other hand, a successful effort to truly optimize working capital can produce larger and more lasting benefits while minimizing the negative impacts on the business.

The same concepts apply to the other components of working capital: payables and receivables. To truly optimize these elements, management must look beyond merely stretching out payment terms to suppliers or trying to accelerate the collection of receivables. Genuine working capital optimization can help reduce the company's reliance on low-margin products and customers, enable long-term and sustainable reductions in at-risk receivables, and produce top-line improvements by facilitating strategic pricing opportunities and rationalization decisions.

Achieving such outcomes requires more than temporary or one-time adjustments, however. What's needed is systematic, disciplined, and sustained analysis – the type of analysis that generally is beyond the capabilities of most M&D ERP systems.

### **Working Capital Optimization Challenges**

Today's ERP systems are powerful tools that can capture tremendous amounts of data. But the process of identifying, locating, extracting, organizing, and analyzing the masses of data in ERP systems can be overwhelming, particularly in view of the large number of transactions involved in most M&D operations.

Data acquisition often is made more difficult because data must come from multiple areas within the ERP system – or even from multiple ERP systems. In addition, some critical data may be located in isolated and disconnected spreadsheets outside the ERP system. Moreover, once data is accessed, additional gaps within the data also can be a significant barrier to analysis.

The analysis process itself is often arduous and ad hoc. With few formalized tools available to perform in-depth analyses, the process typically is labor-intensive, prone to error, and limited in scope, making enterprisewide performance assessments impossible. Further, the analyses often fail to produce actionable improvements, because they draw on information that is incomplete and potentially misleading.

As a result, many M&D companies find that, despite their best efforts, they still are struggling with obsolete or aged inventory. Often they consistently maintain excess inventory levels for some stock keeping units (SKUs) while experiencing shortages or stock-outs for others. Poor on-time delivery performance, excessive premium freight charges, delinquent receivables, and a generally suboptimal cash conversion cycle also can be traced to inadequate data acquisition and analysis capabilities.

### **Elements of an Effective Solution**

An effective, best-in-class working capital solution will enable management to more effectively process and analyze the masses of data that are hidden within the organization's existing ERP systems. To achieve this objective, a growing number of companies are developing and implementing software solutions that can help them address three critical data-related functions:

**1. Acquisition.** The acquisition of data for working capital analysis should be automated and standardized rather than entered manually or as needed. A first step in establishing such a practice is to define what data will be needed for analysis and identify where that data is located within the ERP system. Standardizing the acquisition and extraction of this data will help facilitate the ongoing replication and repetition of the working capital optimization process.

**2. Analysis.** The analysis should be performed promptly in order to enable rapid action in response to improvement opportunities. As is the case with data acquisition, automating the process is essential in order to achieve this capability. Effective analysis involves segmenting working capital data into meaningful groupings that will reveal trends and patterns. Overlaying the individual analyses into multifaceted dashboards and reports can reveal insights that might not be possible through isolated reports on individual metrics (as illustrated in Exhibit 1).

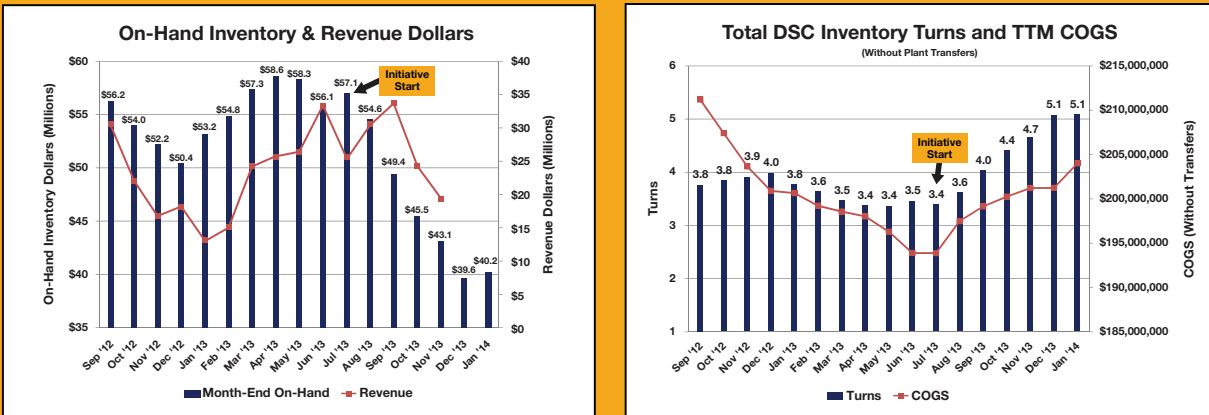
**3. Actionable improvement.** The initial assessments of inventory, receivables, and payables data should highlight areas of opportunity. Ultimately, the insights revealed during the analysis phase also should point toward specific actions management can take to achieve meaningful improvement. The relevant reports and dashboard must be configured in ways that support such decision-making. In addition, the comprehensive, enterprisewide nature of the data acquisition and analysis processes also should enable management to make meaningful comparisons across various aspects of the business and to visualize how improvements in one area could affect outcomes in others.

## Case Study: Achieving Real-World Results

A recent working capital improvement project at a concrete accessory manufacturer illustrates how such initiatives can accelerate cash flow while improving service and performance at the same time. The company, which operated more than 10 manufacturing and distribution locations across the United States, was experiencing suboptimal inventory turns and lacked a formalized process to address slow-moving inventory. Additional analysis also revealed a disconnect between its made-to-stock (MTS) and made-to-order (MTO) policies, as well as a lack of tools to provide management with visibility into inventory levels across all locations.

By updating system parameters, the company was able to optimize its MTO/MTS management and improve its forecasting, pricing, and margin management capabilities. The technology also enabled the company to carry out a SKU rationalization initiative, identify opportunities to reduce supplier lead times, and take advantage of additional vendor-managed inventory and consignment opportunities. The company also employed a variety of tools to mitigate its existing inventory excesses, including sell-backs to suppliers; sales, incentives, and rebates; and reconfiguration and re-engineering of inventory to alternative uses.

### Exhibit 1: Working Capital Improvement Example Results



Source: Crowe analysis

Within five months of the start of the project, the company achieved a 26 percent drop in on-hand inventory levels and a 49 percent improvement in inventory turns, as shown in Exhibit 1. What's more, the company also improved service levels and increased on-time delivery at the same time, ultimately achieving consistent 95 percent on-time performance with the trend continuing on an upward trajectory.

### Turning Data Into Meaningful Information

A disciplined and sustained commitment to working capital optimization can drive operational improvements and enhance bottom-line performance. The foundation for this process is analysis of meaningful, actionable data. An effective solution must segment and organize data in ways that help management analyze the critical components of working capital.

High-performing M&D operations often find that one of the most effective ways to accomplish this analysis is by performing a Pareto-based “ABCD” data comparison across a dual-axis matrix. This methodology segments and stratifies various working capital metrics according to standard “ABCD” groupings that correspond to various percentages of the relevant volumes. A typical grouping would stratify the volume into segments representing 80 percent, 15 percent, 4.5 percent, and 0.5 percent of the total.

For example, a simple finished goods analysis would rank all the various SKUs that are maintained in inventory and then identify which SKUs account for the bulk of the organization’s sales dollars and which account for the least sales. Exhibit 2 illustrates a typical example of such a Pareto-based analysis.

In this example, a simple finished goods analysis reveals that 80 percent of this organization’s sales dollars are driven by only 11.7 percent of its total SKUs. Conversely, 64.8 percent of the SKUs that the organization keeps in inventory account for only 5 percent of sales. This finding suggests opportunities exist for portfolio rationalization, which could help reduce transactional and operating costs and improve profitability, presumably by phasing out the extremely low-volume SKUs.

### Exhibit 2: Typical Pareto-Based Finished Goods Analysis

ABC SKU Classification Sales Dollars				
Class	Sales \$	% of Sales	SKU Count	% of Count
A	\$53,840,553	80.0%	233	11.7%
B	\$10,105,452	15.0%	468	23.4%
C	\$3,036,166	4.5%	638	31.9%
D	\$336,857	0.5%	658	32.9%
<b>Totals</b>	<b>\$67,319,0328</b>	<b>100%</b>	<b>1,997</b>	<b>100%</b>

Source: Crowe analysis

Such a simple and preliminary analysis does not necessarily provide a complete picture, however. Other factors also must be taken into account. For instance, some low-volume items could be offered with very high margins, so eliminating them from inventory could actually have a negative effect on overall profitability.

Plotting the segmented data against a second metric produces a dual-axis matrix, as shown in Exhibit 3. Such a matrix can be used to further segment and categorize inventory items according to other factors such as days on hand (DOH), turns, aging, volatility, profitability, or purchase price variance.

A best-in-class solution would enable management to compare and cross-reference as many as several dozen critical operational metrics across all components of working capital, including payables, receivables, and all categories of inventory such as raw material, work in process, and finished goods. In addition, it also should provide the ability to drill down into areas of particular interest to perform deeper analysis of specific working capital components.

### Exhibit 3: Dual-Axis Matrix

DOH Based on Historic Sales: Inventory Dollars							
Class	0 to 30	30 to 60	60 to 90	90 to 180	180 to 365	>365	Grand Total
A	\$ 402,421	\$ 1,271,853	\$ 1,470,481	\$ 5,408,553	\$ 7,977,676	\$ 5,757,018	\$ 22,288,002
B	\$ 46,225	\$ 204,998	\$ 242,251	\$ 773,966	\$ 1,481,970	\$ 2,054,629	\$ 4,804,039
C	\$ 7,453	\$ 38,233	\$ 60,372	\$ 201,352	\$ 535,279	\$ 1,127,702	\$ 1,970,391
D	\$ 3,086	\$ 2,734	\$ 3,175	\$ 21,024	\$ 227,419	\$ 13,640,610	\$13,898,048
<b>Totals</b>	<b>\$459,185</b>	<b>\$1,517,818</b>	<b>\$1,776,279</b>	<b>\$6,404,895</b>	<b>\$10,222,344</b>	<b>\$22,579,959</b>	<b>\$42,960,480</b>

DOH Based on Historic Sales: Inventory Dollars Percentage							
Class	0 to 30	30 to 60	60 to 90	90 to 180	180 to 365	>365	Grand Total
A	0.9%	3.0%	3.4%	12.6%	18.6%	13.4%	51.9%
B	0.1%	0.5%	0.6%	1.8%	3.4%	4.8%	11.2%
C	0.0%	0.1%	0.1%	0.5%	1.2%	2.6%	4.5%
D	0.0%	0.0%	0.0%	0.0%	0.5%	31.8%	32.3%
<b>Totals</b>	<b>1.0%</b>	<b>3.6%</b>	<b>4.1%</b>	<b>14.9%</b>	<b>23.7%</b>	<b>52.6%</b>	<b>100.0%</b>

Source: Crowe analysis  
Due to rounding, percentages may not add up to exactly 100%

## Achieving Transformational Change

Getting to the optimal level of investment in working capital can be a daunting challenge for private equity teams that are managing M&D companies. Nevertheless, by applying process-oriented and technology-based solutions to access and efficiently analyze the mass amounts of data residing within their ERP systems, a growing number of successful PEGs are finding they can achieve transformational change in their working capital performance.

Such tools can provide portfolio company management with an expedient, automated, and repeatable process that can be performed on a recurring basis to optimize their working capital positions – and ultimately improve the return they deliver to their investors.

## Learn More

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