Better inventory management offers manufacturers a way to keep their supply chains running smoothly while avoiding production delays.
Managing the MRO Supply Chain

There’s a school of thought that suggests that the future of U.S. manufacturing is tied directly to optimizing production facilities to ensure they run as efficiently and profitably as possible. Part of the big picture of achieving continuous improvement – both plant-wide and enterprise-wide – is having systems and processes in place that can help a company remain competitive in the face of market pressures. That philosophy includes having the capability to quickly respond to MRO (maintenance, repair and operations) issues that potentially could suspend production.

Having the right spare parts in inventory at the right time is a crucial factor in keeping the entire supply chain running smoothly. In reality, though, the purchasing and inventory management decisions are often made by the users of the parts themselves, usually on the theory that spare parts are considered indirect materials and are ordered on an “as needed” basis. That kind of thinking denies manufacturers the opportunities to include MRO supplies purchasing in their strategic supply chain planning. It also results in overspending on MRO parts and higher-than-necessary inventory carrying costs.

One option that manufacturers are opting for is to work with a third-party MRO supplier. A company that specializes in the procurement and management of individual parts has both the experience and the ef-

What are the top three market pressures your company has faced this year?

- Attracting & retaining talent: 36.6%
- Competition from countries offering lower costs: 31.5%
- Energy/transportation costs: 23.5%
- Environmental compliance: 8.5%
- Expansion into new markets: 31%
- Gaining access to working capital: 13.6%
- Quality control/assurance: 24.9%
- Raw material costs: 49.3%
- Regulations: 15.0%
- Stabilizing inventory levels: 20.2%
- Supply chain disruptions: 20.7%
- Time-to-market for new products: 23.5%

When it comes to selecting an MRO supplier, what is your highest priority?

- Price: 31.6%
- Delivery: 17.5%
- Application and support capabilities: 13.7%
- Depth and breadth of product offering: 11.3%
- Integration capabilities: 4.2%
- Quality: 19.8%
On a scale of 1 to 5, how important are the following to your company in terms of measuring MRO supplier performance?

<table>
<thead>
<tr>
<th></th>
<th>5 Extremely important</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1 Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>47.9%</td>
<td>43.2%</td>
<td>7.5%</td>
<td>1.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Delivery</td>
<td>55.8%</td>
<td>38.1%</td>
<td>5.1%</td>
<td>0.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Application and support capabilities</td>
<td>26.0%</td>
<td>37.7%</td>
<td>27.9%</td>
<td>7.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Depth and breadth of product offering</td>
<td>16.7%</td>
<td>31.2%</td>
<td>43.7%</td>
<td>6.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Integration capabilities</td>
<td>15.4%</td>
<td>30.4%</td>
<td>38.3%</td>
<td>11.7%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Quality</td>
<td>69.9%</td>
<td>27.3%</td>
<td>2.3%</td>
<td>0.5%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

On a scale of 1 to 5, how important is sustainability in determining which MRO suppliers or supply chain partners your company will work with in the next 3 years?

<table>
<thead>
<tr>
<th></th>
<th>5 Extremely important</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1 Not important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27.1%</td>
<td>40.0%</td>
<td>22.4%</td>
<td>7.6%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

Does your facility implement lean warehousing?

Yes, lean is already in place

No, but plans are underway

No, nothing is currently planned

10% 20% 30% 40% 50%

Compared to 2012, your company’s 2013 MRO product spending for plant and production floors is expected to:

Increase

Remain the same

Decrease

10% 20% 30% 40% 50% 60%

Efficiency of scale to offer significant savings in cost as well as time to manufacturers. That in turn frees up the manufacturer to do what it does best—develop and make products—while having one less thing to worry about.

And make no mistake about it, the number of market pressures manufacturers face these days are plentiful, based on the responses to the “Managing the MRO Supply Chain” survey conducted by IndustryWeek and MSC Industrial Supply Co., a major distributor of industrial supplies. Nearly half (49.3%) of the manufacturing executives polled listed “raw material costs” as one of the top three market pressures their companies faced in 2012. Other pressures named by at least 30% of respondents include: “attracting and retaining talent” (36.6%), “com-
petition from low-cost countries” (31.5%) and “expansion into new markets” (31.0%).

**Tightening Up Inventory Management**

The number one strategy manufacturers plan to adopt to reduce their total MRO costs in 2013 is to tighten internal controls on inventory using their own team (75.6%). Half of respondents (50.2%) say they’ll reduce the number of suppliers they use and consolidate their spending as a way of achieving more pricing power. More than half (57.5%) say they expect to spend the same amount on MRO products in 2013 as they did in 2012, while 27.8% believe the amount will increase.

When it comes to selecting an MRO supplier, manufacturers not surprisingly said price is their highest priority (31.6% of respondents), with quality being the second-most important (19.8%). Interestingly, though, when measuring an MRO supplier’s performance, respondents overwhelmingly pointed to quality as the most important factor (69.9%), with ability to deliver (55.8%) finishing a distant second. While sustainability is an important factor for manufacturers in choosing an MRO supplier, only 27.1% of respondents rated it as an extremely important factor.

MRO spending is seen as only of moderate importance when considered as a part of a manufacturer’s total supply chain costs, with 37.5% of respondents rating it a 3 on a scale of 1 to 5 in importance. Over the next three years, the importance of MRO spending as a part of your company’s total supply chain costs will:

**On a scale of 1 to 5, how important is your company’s MRO spending as a part of total supply chain costs?**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Extremely Important</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>Not Important at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18.8%</td>
<td>32.7%</td>
<td>37.5%</td>
<td>10.6%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

**To help reduce your total MRO costs, which of the following are you likely to do?**

Reduce the number of suppliers and consolidate spending to those who can achieve more pricing power

- tightened internal controls on inventory using your own team: 75.6%
- invest in supplier provided inventory management solutions: 24.4%
- outsource MRO procurement: 5.6%

**In the next 3 years, the importance of MRO spending as a part of your company's total supply chain costs will:**

- increase: 33.5%
- remain the same: 56.9%
- decrease: 9.6%
Which strategies are part of your company’s inventory management plan in 2013?

- Reduce inventory across the board: 60.6%
- Revisit SKU rationalization and product slotting: 28.6%
- Increase stock for critical items: 30.0%
- Start or increase vendor-managed programs: 39.0%
- Other: 3.8%

What types of supply chain management and/or productivity improvement technology do you currently use, and plan to invest in within the next three years?

<table>
<thead>
<tr>
<th>Technology</th>
<th>Currently Use</th>
<th>Within 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Management System</td>
<td>84.1%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Business Intelligence</td>
<td>65.2%</td>
<td>38.2%</td>
</tr>
<tr>
<td>Cloud</td>
<td>38.5%</td>
<td>66.2%</td>
</tr>
<tr>
<td>Customer Relationship Management (CRM)</td>
<td>74.1%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Demand Planning &amp; Forecasting</td>
<td>76.3%</td>
<td>25.2%</td>
</tr>
<tr>
<td>Electronic Data Interchange (EDI)</td>
<td>82.6%</td>
<td>18.3%</td>
</tr>
<tr>
<td>ERP</td>
<td>82.8%</td>
<td>22.7%</td>
</tr>
<tr>
<td>Manufacturing Execution System (MES)</td>
<td>62.7%</td>
<td>41.8%</td>
</tr>
<tr>
<td>Mobile/Wireless Management</td>
<td>64.6%</td>
<td>39.0%</td>
</tr>
<tr>
<td>MRP/MRP II</td>
<td>85.0%</td>
<td>16.8%</td>
</tr>
<tr>
<td>Online Purchasing/Selling</td>
<td>84.0%</td>
<td>19.2%</td>
</tr>
<tr>
<td>Product Data Management (PDM)</td>
<td>74.7%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Product Lifecycle Management (PLM)</td>
<td>73.0%</td>
<td>29.7%</td>
</tr>
<tr>
<td>RFID/Track &amp; Trace</td>
<td>44.6%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Transportation Management System</td>
<td>57.5%</td>
<td>45.0%</td>
</tr>
<tr>
<td>Warehouse Management System</td>
<td>72.5%</td>
<td>28.3%</td>
</tr>
</tbody>
</table>

three years, more than half (56.9%) said the importance of MRO spending as part of their total supply chain costs will remain the same. However, one-third (33.5%) said it will increase, hence the current push to find ways of gaining efficiencies within the MRO procurement process.

So who typically is making the decisions on a company’s MRO distribution partnerships? As you would expect, the buck stops at the C-suite, with 43.4% of respondents saying corporate/executive management is calling the shots on these types of decisions. Also, not surprisingly, these decisions tend to include managers from the purchasing department and the plant floor. However, 19.8% of respondents also pointed to the supply chain and logistics department as participants in MRO discussions, and an equal number named the engineering department as well.

When asked what type of technologies they’re currently using for supply chain and/or productivity improvements, the top three responses were MRP/MRP II (85%), asset management system (84.1%) and online purchasing/selling (84.0%). The response provided by the fewest manufacturers, probably because it’s relatively new, is cloud (38.5%), but cloud technologies also have the most potential for growth, as 66.2% said they plan to invest in the cloud within the next three years.

Ultimately, going forward into 2013, the top strategy companies have for inventory management is to reduce inventory across the board (60.6%). Another 39.0% say they plan to start or increase vendor-managed inventory programs; 30.0%
Managing the MRO Supply Chain

say they’ll increase stock for critical items; and 28.6% say they’ll revisit SKU rationalization and product slotting strategies. We also asked respondents to share any other strategies they plan to adopt; here’s a sample:

• Appoint an internal MRO champion to develop and implement a solution;
• Reduce “informal” inventories;
• Redesign equipment to better utilize MRO part commonality;
• Push suppliers to hold more inventory closer to point-of-use in plants.

Clearly, then, as manufacturers face ever tighter margins and are squeezed to increase their product development processes, gaining a better handle on controlling their MRO costs will become more important than ever.

Methodology

The “Managing the MRO Supply Chain” survey was conducted online via e-mailed invitations to a select group of IW subscribers. The survey took place in November 2012. A total of 213 completed surveys were collected. All responses were anonymous. This report is based on data from this research, including the responses to open-ended questions.

Focus on Employees to Capitalize on Opportunities

INDUSTRYWEEK asked manufacturing executives to identify their biggest missed opportunities, and then to name their biggest growth opportunities over the next three years. Here’s a small but representative sample of their comments.

Biggest Missed Opportunity

• The biggest missed opportunity has been not raising the education level of employees.
• Customer service. Give the customer what they want when they want it at a price they can afford to pay. Too many manufacturers conduct business on their terms and not the customer’s terms.
• Taking advantage of energy saving programs from the government years ago when the demand was not as great and the regulations were not as tight.
• Not being vocal enough about the burden of regulations and taxes by the U.S. on domestic companies/corporations to drive a greater change by those in elected positions or those who were elected.
• Focus and business alignment across departments to strategically go after existing and new markets. Capitalize on core competencies and build supplier and customer relationships to improve overall performance.
• Spending too much time on the latest trend and not enough on reducing actual finance costs.
• Insufficient real-time monitoring of product performance.
• Taking advantage of lower costs in Southern states.
• Understanding the total supply chain cost of a manufactured product, including lead time impact.
• Cutting back on and scrapping unused production machinery, thus reducing your production capacity.
• Developing and recruiting talent.
• Not upgrading fast enough to new technology before other companies do.
• Strategic partnerships instead of competitive focus at all levels.
• Not reshoring soon enough.
• Supply chain disruption management.
• Too much emphasis on “low price” and not enough on common support components, quality and long-term sustainability.
• Taking advantage of the lean/slow time to build and train a team or acquire talent for planned/expected expansion of business and the economy in general.
• Globally insuring we are collectively purchasing to reap economy of scale with raw material suppliers and machining sources.
• Failure to respond to government regulations adequately when asked.
• Understanding the ability to react to customer needs quickly, accurately and completely is critical.
• No apprentices or hiring of young people. Training the youth is a big missed opportunity in manufacturing.
Biggest Growth Opportunity

- The biggest growth opportunities will be in a better educated and trained workforce. We will take advantage of a better educated workforce being able to use “smart technology” for potential efficiency and productivity gains.
- Commercial, aerospace, satellite applications as well as turbine energy have shown the biggest growth in 2012. We have implemented long-term agreements for raw material and have re-tooled some of our equipment to process parts faster.
- Assisting or leading customers in regulatory compliance. This will be a great help to OEMs with new product introduction and current product sustainability.
- Availability of product at a lower cost, shorter deliveries and high-level of quality. We will continue to strive to reduce inventory and ensure we are building the right product at the right time.
- Predictive management of inventory. Not just-in-time delivery but anticipating the market requirements through intelligent production and inventory methods.
- Increase our use of cloud storage and data sharing, and virtualization of data and servers.
- Growth of manufacturing in the U.S. as companies bring back operations that have been outsourced over the past 10 years.
- Investment in new CNC machinery. Currently retiring older machines.
- Growth in emerging markets and capture of existing market share.
- Become a more integral part of our customers’ supply chain by working with key customer employees to improve execution performance.
- Filling the supply chain needs of the alternative fuels market.
- Insourse more MRO. Improve response time.
- Servicing customers over a wider range of product groups. Improving internal processes to increase throughput without throwing labor at the bottlenecks.
- Supply chain performance, from procurement of materials through global distribution to delivery to the customer. He who wins here wins more!
- Expanding into China. “Green” — anything touching emissions reduction, energy efficiency, etc. Using Lean to drive out waste.
- Reducing the lead time for downstream customers. Reducing the total cost of parts and services to recapture onshoring customers.
- Making a completely domestic product. “Made in the USA” will have more impact and added value over the next few years.

About IW Custom Research

IW Custom Research is an operating unit of IndustryWeek magazine that provides insight into executives’ opinions and manufacturing trends. IndustryWeek brings together manufacturing business leaders to explore the issues, strategies, trends and technologies that help them build more competitive and profitable companies. IndustryWeek is part of the Penton Manufacturing & Supply Chain Group, whose brands are the trusted resource for relevant news and measurable results. For more information, go to www.industryweek.com.

About MSC Industrial

MSC Industrial Supply Co. is one of the largest distributors of metalworking and maintenance, repair and operations (MRO) supplies to industrial customers throughout the United States. MSC helps customers increase productivity, visibility and cost savings by leveraging their technology, their supply chain expertise and next-day delivery of more than 900,000 industrial products. Learn more about MSC at www.mscdirect.com.
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