

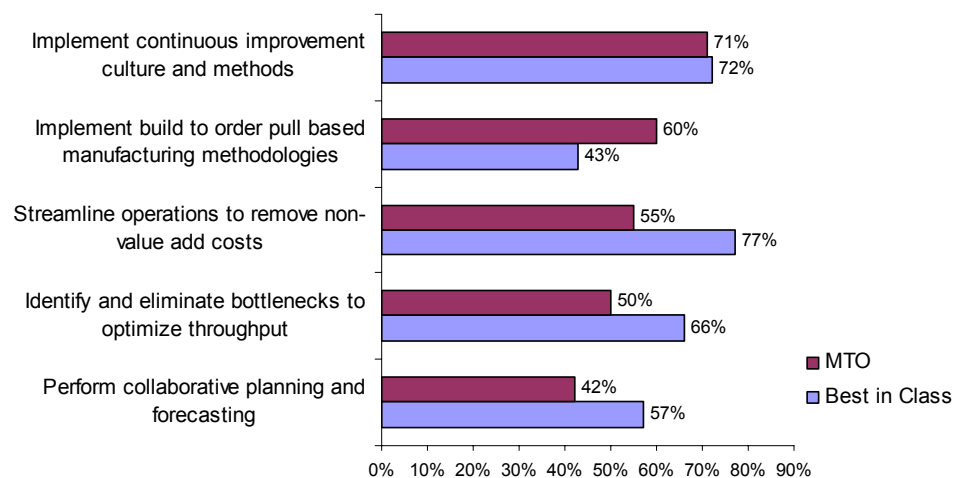
Order to Cash: When You Make to Order

Those manufacturers that operate in a Make to Order (MTO) mode face a unique set of challenges and opportunities when optimizing the order to cash cycle to improve operational performance and cash flow. While these companies strategically understand the benefits of implementing the continuous improvement methodologies and pull-based schedules associated with Lean manufacturing, more than half have yet to attend to some of the key issues that Best in Class companies have already addressed.

MTO versus Best in Class

Aberdeen's recent study of over 235 companies to benchmark "The Order to Cash Cycle: Integrating Business Processes to Improve Operational Performance" found that Make to Order (MTO) manufacturers were 24% more likely to feel cash flow pressures than Best in Class¹ manufacturers. Without the safety buffers inherent in a Make to Stock (MTS) environment, there are fewer guarantees that the order to cash cycle (which is often the life blood of the company) flows evenly over time. This only accentuates the need for the process to flow freely through the organization.

Figure I: The Strategic Actions of MTO Manufacturers are Not Necessarily Best in Class



Source: Aberdeen Group, April 2007

The MTO manufacturers represented in our survey are most likely to implement a continuous improvement culture and methods (Figure I). Almost by definition, they are more likely than other manufacturers to

Recommendations for Action

- ✓ Streamline operations to remove non-value added costs.
- ✓ Implement specific functionality to identify and eliminate bottlenecks to optimize throughput.
- ✓ Take an integrated approach to your ERP implementation.
- ✓ Integrate disparate applications with business process management tools.
- ✓ Integrate business processes with workflow automation.

implement build to order pull-based methodologies. These strategic actions demonstrate an appropriate philosophy and are consistent with the fact that 53% use Lean manufacturing features of ERP. However, only 26% have implemented Lean specialty solutions and they are significantly less likely than Best in Class to have taken the actions that produce real tangible results; actions such as:

- Streamlining operations to remove non-value added costs
- Identifying and eliminating bottlenecks
- Performing collaborative planning and forecasting

These companies are also 44% less likely to integrate disparate applications with business process management tools and are 42% less likely to integrate ERP with workflow automation. As a result, while 74% of Best in Class have reduced order to ship lead times over the past two years, only a little over half (54%) of MTO manufacturers have done so. While the concept and metric of a Best in Class order to ship time will vary by industry and type of product, our average MTO survey respondent had a 25 day lead time, while that of our average Best in Class was 15 days.

“Our number of orders are few, and the time to delivery may be long. We use a lot of manual lists and schedules on Microsoft Office as custom documents. All of our production is specifically for our customers – custom or contract – and we have neither the size, the production capacity, nor the department income to justify automating the process.”

-Director of Operations,
Medical Device Manufacturer

Choosing a Vendor

Certain ERP vendors are better positioned to address the specific requirements of MTO manufacturers. The combination of build to order and pull-based methods (rather than push-based methods) requires the ability to control a flow-based schedule with specific production orders. The ability to identify and eliminate bottlenecks that could disrupt an even flow throughout the plant floor is critical to optimizing throughput. The most common application of this philosophy is delivered through two complimentary methodologies: Lean Manufacturing and Theory of Constraints (TOC).

Table I shows the percent of MTO companies represented in the manufacturing survey participants² of the four largest ERP vendors, including those currently using and those evaluating the solution. Each of these vendors supports Lean Manufacturing and TOC methodologies in particular.

Table I: the Percentage of ERP Vendors’ Customers and Prospects that are MTO

ERP Vendor	Currently Using	Currently Evaluating
▪ Infor / SSA	▪ 55%	▪ 44%
▪ Lawson / Intenia	▪ 22%	▪ 50%
▪ Oracle, including Peoplesoft and JD Edwards	▪ 24%	▪ 33%
▪ SAP	▪ 30%	▪ 44%
▪ Homegrown / custom developed	▪ 55%	▪ 100%

Source: Aberdeen Group April, 2007

Those survey participants using one or more of Infor's numerous ERP solutions³ represented the highest concentration of MTO customers. While several of Infor's products were aimed squarely at the discrete manufacturer with a solid offering of Lean features, Infor's acquisition of the Baan product line (through its acquisition of SSA Global) further strengthened this offering for companies with complex Engineer to Order (ETO) products and project based manufacturing processes.

Lawson's current percentage of MTO customers is a reflection of the M3 product (the former Movex product acquired from Intenia) focus on specific verticals including food and beverage, the fashion industry, wholesale distribution, and asset-intense industries. These industries together create a unique set of challenges. The fashion industry requires the use of matrix processing to deal with style, color, and size variations; many food and beverage products have a limited shelf life which makes a pure MTS approach impossible; and asset-intense industries can be a combination of MTS and MTO environments.

Given Oracle's heritage in financial applications, it is not surprising to see that a smaller percentage of its customers and prospects are MTO. While PeopleSoft Manufacturing offers both of these methodologies, amidst Oracle's discussions of more industry focus, industries where MTO is prevalent do not surface. These features are also an important part of SAP's "Adaptive Manufacturing" approach.

However, while the ERP vendor market has been consolidating, resulting in few very large competitors and a shrinking number of smaller players, there are some who focus specifically on the MTO segment. This was reflected in MTO companies' current evaluations.

Three ERP companies in particular – IFS, IQMS and Visibility – are worth noting because 100% of the survey participants in this study that are currently evaluating these companies, are either pure MTO or a hybrid of MTS and MTO.

IFS offers specific solutions in MTO and related industries (including Lean Enterprise for ETO companies, Project Based Deliveries, and "To Order" Manufacturing) whether it is a Configure to Order, Engineer to Order, or Make to Order solution. Visibility takes a similar approach but with a single focus on the complex product manufacturer. However, neither of these ERP providers offers specific functionality in support of TOC. IQMS on the other hand offers very specific functionality for pull-based build schedules, eKanban, constraint based planning and CTP (capable to promise) inquiries.

Note also that 55% of the manufacturers still using home grown or custom developed systems operate in an MTO mode along with 100% of those currently evaluating this as an option. This signals that MTO manufacturers are hard to satisfy. Along with the fact that there is a limited selection of commercial solutions available specifically designed for MTO processes, this indicates these companies are unwilling to adapt business processes to meet the capabilities of the software.

"I am in the process of rolling out Movex (M3) from Lawson across a group of companies. The configured architecture provides for the greatest level of integration. I see a workflow as a necessary vehicle in reducing business lead times and increasing agility."
-Vice President of IT

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¹ Aberdeen defines Best in Class companies in this study (of over 235 companies) as those with high rates of complete and on time shipments, have days sales outstanding of less than 30 days, and are able to invoice within three days of shipment/completion.

² Fifty-six percent of all survey respondents were manufacturers.

³ Infor has grown to be the largest privately held ERP company largely through acquisition. Its portfolio of products include: MAPICS, Visual, Syteline, COM, XPS, TRANS4M, System 21, Adage, ERP LN, ERP LX, BPCS, Baan, MANMAN, CAS, PRMS, KBM, Prism, Infinium, and Masterpiece.

Related Research

[Benchmarking the Order to Cash Cycle](#);
March 2007

[Mid-Size Companies Lean Towards Single Source Solutions](#); November 2006

[Best Practices in Extending ERP](#); November 2006

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