

A N A L Y S T C O N N E C T I O N



Joe Barkai
Practice Director, Product Lifecycle Strategies

Midsize Manufacturers: Driving Innovation with Modern Information Technology

June 2011

As the markets for manufacturers started a tenuous recovery in 2010, the willingness to invest in information technology also returned. However, manufacturers didn't simply dust off the pre-recession project pipeline and pick up where they left off. Rather, many IT leaders saw this as an opportunity to step back and take a big picture view of their infrastructure approach and application portfolios. For small to midsize manufacturers — many of which are supply partners with larger companies — the economic recovery presents opportunities as well as challenges.

The following questions were posed by Oracle Corp. to Joe Barkai, practice director of Product Lifecycle Strategies at IDC Manufacturing Insights, on behalf of Oracle's midsize manufacturing customers.

- Q. In the aftermath of the global recession, what are some of the top trends affecting the manufacturing industry, and how are they impacting industrial manufacturers?**
- A. As the global economy continues to rebound from the recession, manufacturers continue to pay attention to costs and profit margins, but they also see new opportunities to grow top-line revenue. As part of this growth strategy, manufacturers are seeking new opportunities in new global markets and in better segmentations of customers in existing markets. While the opportunities are significant, so are the new challenges. Manufacturers have to aggressively defend their market share against low-cost competitors and learn how to manage profitable growth in emerging markets that are farther geographically from their home base of operations.
- Q. While the top trends impact all manufacturers, what are some of the unique challenges that midsize manufacturers face?**
- A. Small to midsize manufacturers are often hurt early during economic downturn because they tend to have limited resilience: limited cash reserves and access to credit, few customers, and limited product portfolios and inventory. For the same reasons, small to midsize manufacturers also take longer to recover.

Small to midsize manufacturers are often suppliers to large original equipment manufacturers (OEMs), which means they serve multiple masters with increasing product, manufacturing, and supply chain complexities. Small to midsize manufacturers have modest influence on their suppliers and are facing intensifying pressure from OEMs to reduce costs.

While small to midsize manufacturers can be successful in "niche" products and "boutique" markets, such products and markets can be harder to protect and grow for a number of reasons. Often, niche products and boutique markets cater to limited and transient demographics and tend to have limited scalability outside existing markets, making sustainable success challenging. Moreover, we often see products that enjoy only a short time in the limelight because they rely on technology as the only barrier against competitors and do not pay enough attention to other means, such as market intelligence and customer intimacy to create brand loyalty.

Q. How can midsize manufacturers surmount these challenges and boost profitability, market share, and customer loyalty?

A. This is the time midsize manufacturers have to start investing for growth. As major OEMs start ramping up for the "new normal" in manufacturing, they will look for strong partners and suppliers that are best equipped to meet their needs in terms of technical and manufacturing capabilities and supply chain readiness. But when small to midsize manufacturers are competing for OEMs' business, technical, manufacturing, and supply chain capabilities alone will not always suffice. Small to midsize manufacturers will need to modernize their IT infrastructure so they can work collaboratively and efficiently with OEMs. IT modernization will also help small to midsize manufacturers compensate for their inherent low resource availability and improve their agility and resilience in the face of market changes.

An important part of a sustainable growth strategy is to protect products by creating greater dependency and multiple points of attachment with customers and suppliers; for example, bundling of products and value-added services and risk-reward sharing relationships with customers and suppliers.

Q. Specifically, how can midsize manufacturers feasibly deploy a sophisticated, modern enterprise IT architecture?

A. Many midsize manufacturers still employ a fragmented IT environment of spreadsheets or bespoke boutique applications. While these may appear adequate during day-to-day operation, they do not scale as the company grows, nor do they offer the openness and flexibility needed for efficient collaboration with customers and suppliers. Furthermore, these legacy infrastructures and applications limit the capacity to adopt new business models and emerging technologies and delivery models such as cloud computing and smart mobile devices.

One example of IT modernization that small to midsize manufacturers often overlook is product data management (PDM). Smaller manufacturers used to think they could manage their supply chains using basic software applications, but in the future, they will find it imperative to deploy a more sophisticated PDM system to exchange real-time information with suppliers, manage multiple product configurations, and ensure quality throughout a product's lifecycle.

Q. What type of IT road map should midsize manufacturers outline?

A. Midsize manufacturers should make sure they have a flexible foundation for managing their product development, supply chain, manufacturing, delivery, and service operations. They need to have deep insights into customers, suppliers, contracts, and warranties. Because small to midsize manufacturers often work with multiple OEMs and suppliers that use different IT systems, openness and scalability are critical, and the adoption of standards-based, service-oriented architecture (SOA) and cloud-deliverable solutions is essential.

The IT infrastructure must support easy integration with multiple applications and systems environments. It should also scale as the business grows and adapt to changes as business dynamics, customer requirements, and IT capabilities evolve.

While smaller manufacturers may find that they can manage their human resources using basic software, they may require a more sophisticated PDM system to exchange real-time information with suppliers; manage multiple, highly complex product configurations; and ensure quality throughout a product's lifecycle.

Small to midsize manufacturers tend to choose software based on cost and often have the perception that commercial enterprise software is monolithic and too expensive to purchase, install, maintain, and manage. This is not necessarily the case. Many vendors offer software tools — often referred to as implementation accelerators — and services to help smaller companies undergo a smooth implementation, dramatically reducing the cost, effort, and risk of implementing enterprise-class software. Emerging delivery models such as cloud-delivered software-as-a-service (SaaS) and on-demand applications do not require large investments in hardware or software licenses. A company can pay for them as they are consumed, as an operating expense instead of a capital expenditure, eliminating large cash outflows.

ABOUT THIS ANALYST

Joe Barkai is practice director for IDC Manufacturing Insights' Product Lifecycle Strategies research service. In this role, he examines discrete manufacturing industries that include automotive, aerospace, industrial equipment, and other complex, mission-critical capital equipment to identify business imperatives, best practices, and emerging technologies. His research topics center on effective product lifecycle management and include innovation, design and engineering, service and warranty, and product end of life.

ABOUT THIS PUBLICATION

This publication was produced by IDC Manufacturing Insights Go-to-Market Services. The opinion, analysis, and research results presented herein are drawn from more detailed research and analysis independently conducted and published by IDC Manufacturing Insights, unless specific vendor sponsorship is noted. IDC Manufacturing Insights Go-to-Market Services makes IDC Manufacturing Insights content available in a wide range of formats for distribution by various companies. A license to distribute IDC Manufacturing Insights content does not imply endorsement of or opinion about the licensee.

COPYRIGHT AND RESTRICTIONS

Any IDC Manufacturing Insights information or reference to IDC Manufacturing Insights that is to be used in advertising, press releases, or promotional materials requires prior written approval from IDC Manufacturing Insights. For permission requests, contact the GMS information line at 508-988-7610 or gms@idc.com.

Translation and/or localization of this document requires an additional license from IDC Manufacturing Insights. For more information on IDC, visit www.idc.com. For more information on GMS, visit www.idc.com/gms.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc-mi.com