



Midmarket Manufacturers Investing in Innovation Technology

Wednesday, September 14, 2005

David O'Brien, Eric Karofsky, Michael Burkett

Small and midsize manufacturers continue to struggle to improve innovation. Most face challenges similar to their larger counterparts—not surprising, since organizations of this size are often beholden to their upstream partners when it comes to IT and operating strategies. However, small size does not necessarily equate to simple operating environments. In fact, internal and external operating environments at small to midsize manufacturers are becoming far more complex.

Many share common operational pain points, including the following:

- Demanding customers increasingly pushing requirements for faster turnaround times on quotes, orders, and design/support of unique products
- Managing an increasingly complex design and development environment—High business growth typically requires coordination of design and development resources across and between boundaries, both geographic and organizational
- Managing an increasingly global supply base, with ramifications for logistics, quality, and costs
- Ever-increasing quality, productivity, and compliance requirements

Most organizations also recognize the need for process improvement, with most readily able to point to any number of current, inefficient business practices that result in subpar performance. Some recent examples from customer interviews include excess scrap due to inefficient management of change order processes; delayed time to market; slow response to customer requests resulting in lost sales; and inaccurate cost information on quotes and Requests for Quotation (RFQs), resulting in lost profits and/or inaccurate pricing.

These inefficiencies can be traced back to several root causes:

- **The process of innovation is poorly, and inconsistently, defined at most organizations.** More than 60% of small manufacturers, and 40% of midsize manufacturers, lack a defined New Product Development and Introduction (NPDI) process. What's missing is a broader concept of Product Lifecycle Management (PLM), or an end-to-end, holistic view that includes the departmental and intercompany dependencies required to bring a product to market quickly, successfully, and profitably.
- **Fragmented ownership of the innovation process.** In most companies, ownership of innovation is distributed throughout the organization. In SMBs, this is often with the C-level executive or business owner. Different departmental priorities create different metrics of success, and effective decision making requires that product and design information be tailored to address these different departmental needs—difficult to do when there is often no common platform of consistent data and information. There is poor integration of information throughout the product design and development process. Getting accurate, timely data into the hands of key decision makers is a constant problem.

Technology strategy and investment in innovation should support a sound business strategy and a culture of continuous innovation (for additional information, see the AMR Research *Alert* article "Creating a Culture of Innovation"). Investment priority should first get design and related data under control, and then share this information with management to support decisions throughout the innovation process. Many small and midsize manufacturers are still developing basic design and project management capabilities, then defining a consistent process by which new product, program, and customer-facing projects are launched. Midmarket manufacturers are looking for technology investments that are easy and fast to implement and offer a low-risk way of accessing robust technology.

Our outlook for technology investment among midsize manufacturers is healthy the next three to five years, with several segments growing at double-digit rates. Consider the following:

- Midmarket manufacturing (defined here as companies with between \$30M and \$999M in annual revenue) is the fastest growing segment of Computer-Aided Design (CAD)/PLM application spending, growing at 12% annually. This is substantially higher than the overall market average of 9%.
- PLM and CAD packaged application software sales, and associated vendor services, will grow to \$7.2B in 2009 from approximately \$4.2B in 2004.
- Spending on non-CAD PLM will be behind a substantial portion of that increased investment. Non-CAD PLM applications like Product Data Management (PDM), collaborative design tools, customer needs management, and portfolio management will grow to \$4.2B in 2009 from \$1.9B in 2004, more than doubling in size.

For a complete summary of investment supporting innovation, please see *The Product Lifecycle Management Applications Report, 2004-2009*.