



## NEW TECHNOLOGIES = NEW GROWTH FOR MANUFACTURERS

Customers are more demanding than ever, holding manufacturers to higher standards for innovation, speed, quality, and support based on what they've found at other vendors or even in other industries. This can be bad news for small- and mid-market manufacturers (SMMs), as they struggle to keep pace with advanced capabilities at larger firms.

But there's also good news: SMMs can compete—and win—if they implement the same technologies as their mega-peers. Why? Because the smaller footprint of an SMM makes it easier, faster, and more cost-efficient to leverage new technologies across *all aspects* of the business—leadership, R&D, supply chain, manufacturing, sales, customer service and support—to improve end-to-end functional collaboration, customer value, and profitability.

The *3DS Technology Barometer—ERP*<sup>1</sup> examines how technologies and ERP systems can help manufacturers achieve new performance targets—regardless of size. The research, conducted by The MPI Group, an independent global research firm, proves that there's a level playing field waiting for SMMs ready to grow.

### IMPROVEMENT POTENTIAL AND GROWTH

Most manufacturers have massive room for performance improvements. In fact, fewer than half rate *any* of their performances as "excellent" (*Figure 1 on next page*). Many performance measures, including profitability and revenue, are rated "excellent" by a third or fewer respondents. Employee satisfaction is rated "fair" or "poor" by approximately one-third of companies.

Larger manufacturers (more than \$50 million revenue) are more likely to rate some performances as "excellent": e.g., 42% of larger firms rate return on assets "excellent" and 40% rate labor productivity "excellent" vs. just 27% and 31% of smaller firms (\$1 million to \$50 million revenue), respectively. However, many ratings are comparable, including revenues, profitability, and delivery to customers.

<sup>1</sup> The *3DS Technology Barometer—ERP* was fielded in April and May 2023 by The MPI Group, an independent global research firm, and collected responses from 103 companies in North America, EMEA, and the Asia-Pacific, across a range of manufacturing and related industries.

Manufacturers are leveraging a variety of growth drivers, with new products topping the list. Large manufacturers are more likely to cite new products as their top driver than smaller firms, 62% vs. 35%. At small manufacturers, the top drivers are improved sales and marketing and new customers in existing markets (both at 47%).

Manufacturers of all sizes face internal and external challenges that inhibit growth, with economic conditions outweighing other issues for both large and small manufacturers:

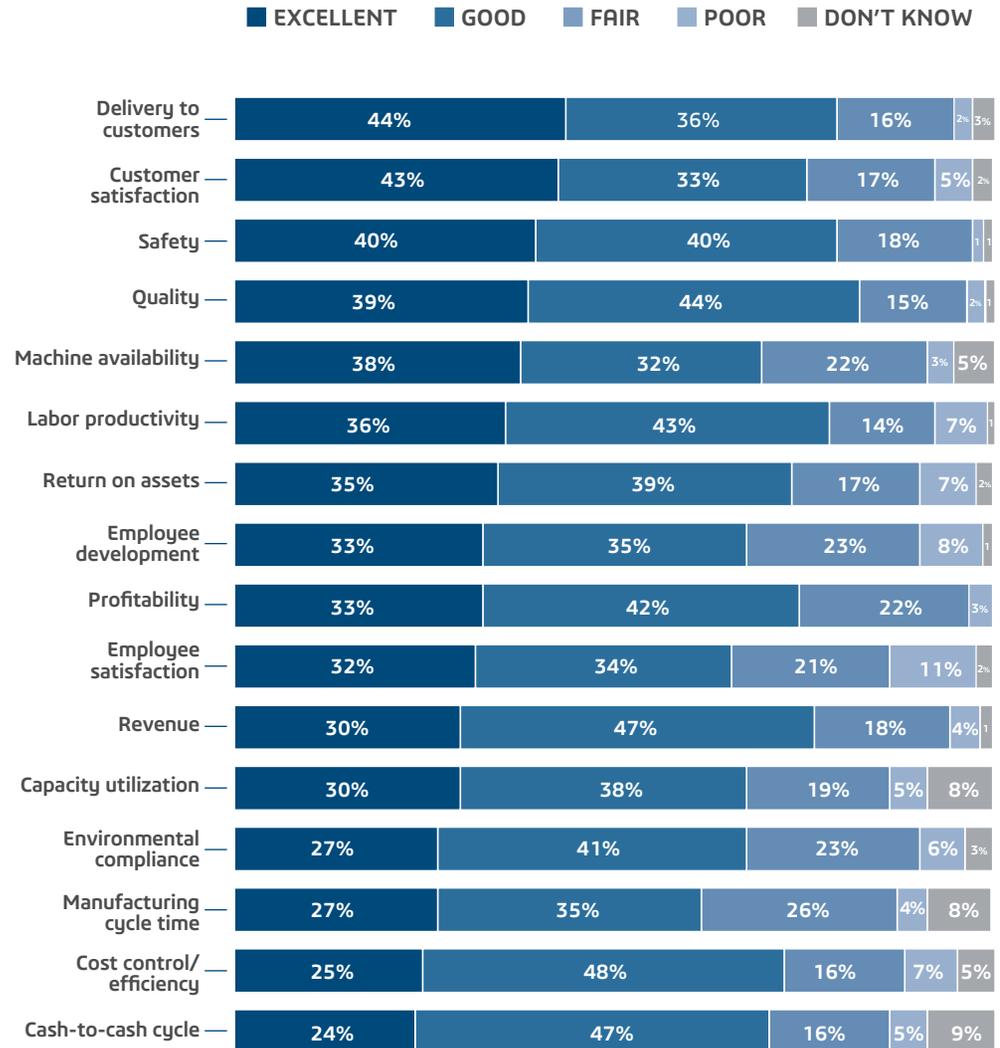
**Growth Drivers:**

- New products (49%)
- Improved sales and marketing (45%)
- Expanded capacity (42%)
- New customers in existing markets (41%)
- Capitalize on evolving market opportunities (41%)
- New customers in new markets (40%)

**Growth Inhibitors:**

- Economic conditions (54%)
- New competitors (34%)
- Labor availability (32%)
- Financial resources (25%)
- Production/equipment capacity (23%)
- Supply-chain performance (23%)

**Figure 1. Company performances**  
(% of manufacturers)<sup>2</sup>



<sup>2</sup> Aggregated percentages may not sum to 100% due to rounding of decimals, or more than one response being allowed.

## IT AND ERP IMPACT ON PERFORMANCE

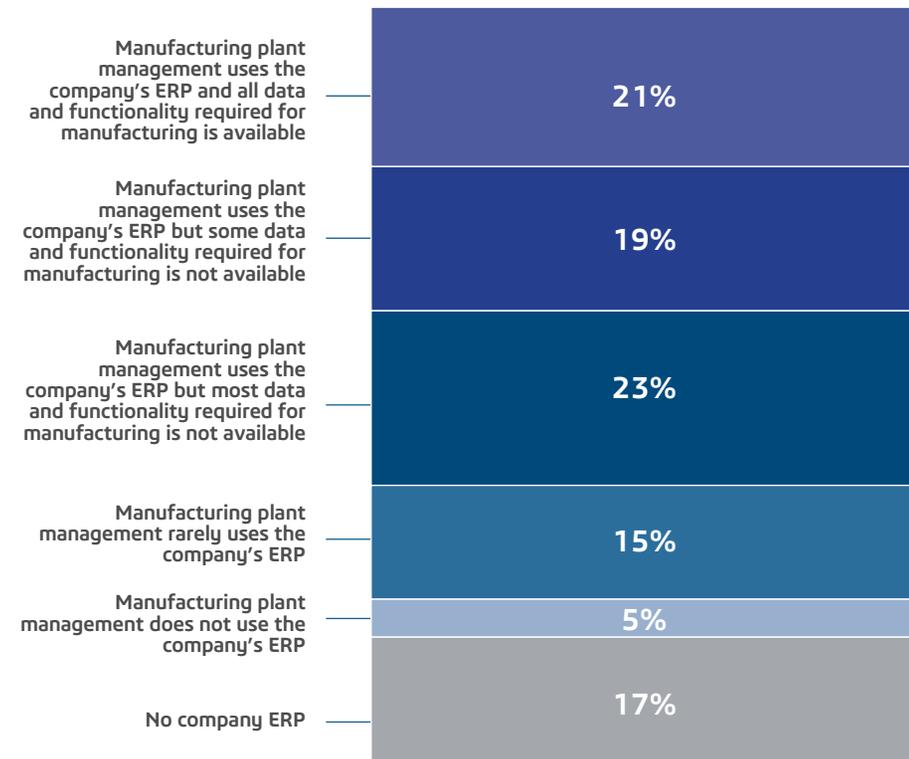
Most manufacturers responding to the *3DS Technology Barometer* report that their IT systems and applications have improved manufacturing performance (24% “significantly improved performance” and 51% “somewhat improved performance”). Only a quarter report “no effect” (18%) or that IT systems and applications have “somewhat hurt performance” (6%).

Many IT solutions are designed with a range of businesses in mind—retailers, service organizations, financial institutions, manufacturers, etc. ERP systems such as these may not align with manufacturers’ production needs, which may explain why just 40% of plant managements get even *some data and functionality* required for manufacturing from their companies’ ERP (*Figure 2*).

But at firms where plant management gets at least some required manufacturing functionality and data, performance measures are more likely to be “excellent” compared to other manufacturers—leading to a divide between information “haves” vs. “have-nots:”

- **Quality: 57% vs. 26%**
- **Safety: 57% vs. 28%**
- **Delivery to customers: 57% vs. 34%**
- **Customer satisfaction: 55% vs. 34%**
- **Labor productivity: 50% vs. 26%**
- **Capacity utilization: 50% vs. 16%**

**Figure 2. Plant management use of company ERP system**  
(% of manufacturers)



At companies with ERP systems, the types of manufacturing data necessary for success are *not available* in most companies' ERP systems. Only bill of materials and inventory levels/availability are found in half or more of ERP systems (*Figure 3*). Critical production information—including maintenance schedules and material requirements—are found in just a quarter of ERP systems.

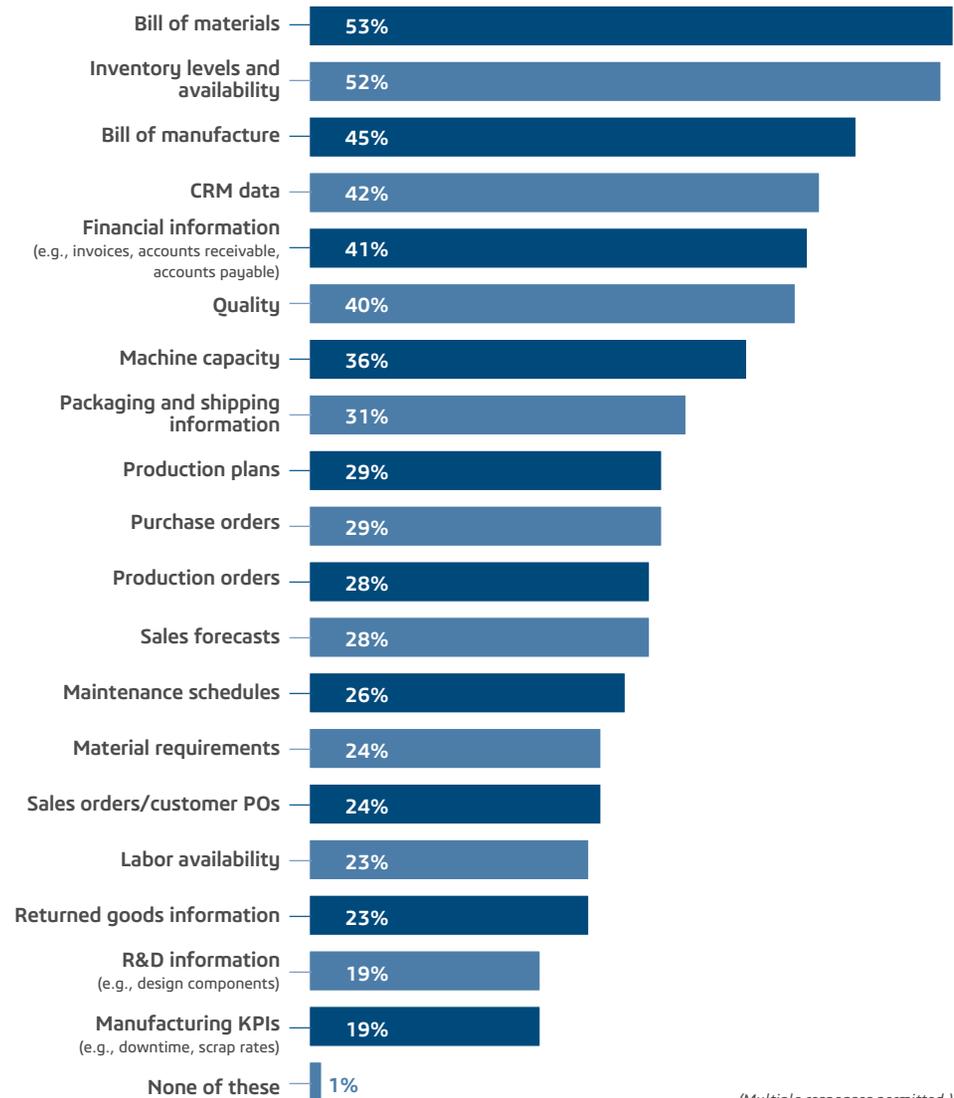
Manufacturers where plant management receives at least some manufacturing functionality and data are far more likely to report access to many types of manufacturing data:

- **69% have access to bill of materials vs. 39% at other manufacturers.**
- **62% have access to bill of manufacture vs. 30% at other manufacturers.**
- **40% have access to material requirements vs. just 9% at other manufacturers.**

The flow of shop floor data to other corporate functions also is limited at many manufacturers. For nearly half of functions, only some manufacturing information is available in real time from their ERP systems. Manufacturers report that the functions with the highest percentage of “all or most manufacturing information available in real time” are Sales (63% of manufacturers); Inventory/warehouse (62%); and Customer service/support (59%).

Functions with the highest percentage of “no manufacturing information available in real time” are Quality (16%); R&D/product development (14%); and Human resources (13%). Manufacturers that lack a platform for cross-functional communication and sharing of information—to and from the shop floor with all corporate functions, suppliers, and customers—will be challenged to efficiently find and address problems that damage performance and inhibit growth.

**Figure 3. Manufacturing data available via company ERP system (% of manufacturers)**



(Multiple responses permitted.)

## ERP PURCHASES AND UPGRADES

Many manufacturers are dissatisfied with their ERP systems, with 74% making changes:

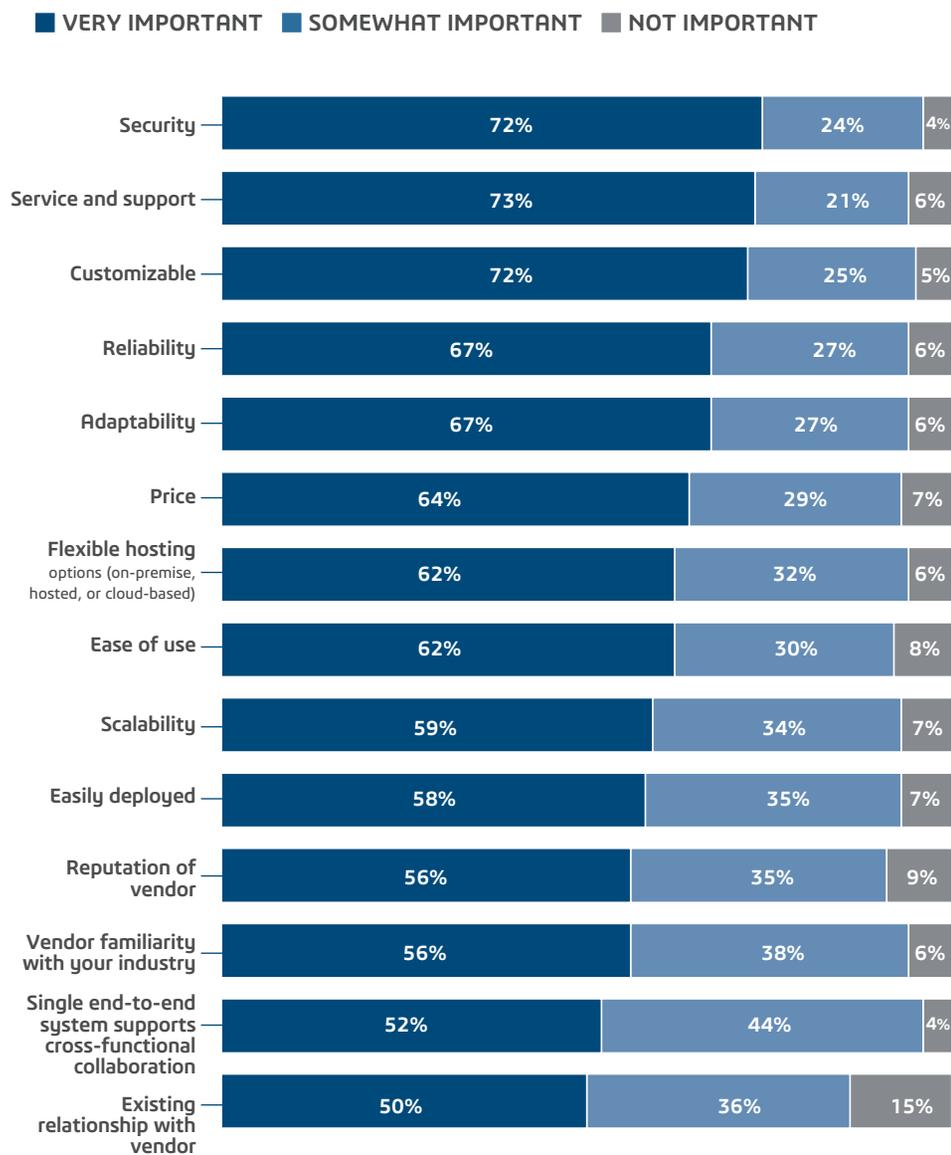
- 16% will purchase new ERP systems to replace existing technologies.
- 3% will purchase their first ERP systems.
- 27% will invest in major upgrades/enhancements.
- 28% will invest in minor upgrades/enhancements.

Manufacturers where plant management receives at least some manufacturing functionality and data from their current ERP systems are more likely to upgrade their existing ERP systems—64% vs. 49% of other manufacturers—indicating a desire to keep technologies up-to-date as new competitors emerge and markets evolve.

When considering an ERP system, half or more of manufacturers rate all the characteristics listed as “very important.” The top characteristics are Security, Service and support, and Customizable (i.e., configurable to customer requirements) (Figure 4). Manufacturers where plant management receives at least some manufacturing functionality and data from their ERP systems are more likely than other manufacturers to rate many of the characteristics as “very important,” including:

- **Adaptability: 88% vs. 52%**
- **Security: 86% vs. 66%**
- **Ease of use: 74% vs. 54%**
- **Existing relationship with vendor: 69% vs. 36%**
- **Single end-to-end system: 62% vs. 46%**

**Figure 4. Characteristics when considering an ERP system**  
(% of manufacturers)





## IS ERP SUPPORTING YOUR COMPANY'S GROWTH?

Is your company achieving the performances — customer, financial, operational— necessary to stay competitive? Does your company need better shop-floor processes and tools to grow? Is your small- to mid-sized firm ready to compete with larger manufacturers?

[DELMIAWorks](#) provides an end-to-end ERP system with a shop-floor focus. Our solution is especially tailored to help small and mid-market manufacturers increase efficiency and visibility of performance on the plant floor. It streamlines processes across sales, order processing, finance, human resources, planning, production, inventory, procurement, and more.

DELMIAWorks Manufacturing ERP serves as your company's backbone for visibility, execution, and communication of manufacturing activities and data throughout your supply chain. Isn't it time to give your manufacturing function the attention and tools it needs?