

Reinventing Industrial Manufacturing:

How digitization can help midsize manufacturers grow and compete



Introduction

Midsize industrial manufacturing companies need to be able to compete with enterprises that have bigger budgets, more resources, and higher brand recognition. Like their larger competitors, they need to manage a wide range of functions including sourcing, fabrication processes, manufacturing, machinery maintenance, logistics, and business operations. Technology can help level the playing field and address the complex needs of these businesses, but decision makers must think strategically about how to implement these investments based on existing use cases and best practices.

A Focus on Growth

Executives at midsize industrial manufacturing companies are highly focused on business growth. According to research by Oxford Economics, their top priorities include increasing market share, growing revenue, and attracting new customers (Figure 1). They also are more likely than their peers in other industries to list expanding into new markets as a top-five priority (26%, vs. 19% survey average). And they are more likely to mention a goal of expanding their geographic footprint as a way to increase the organization’s competitiveness (60% vs. 54% survey average).

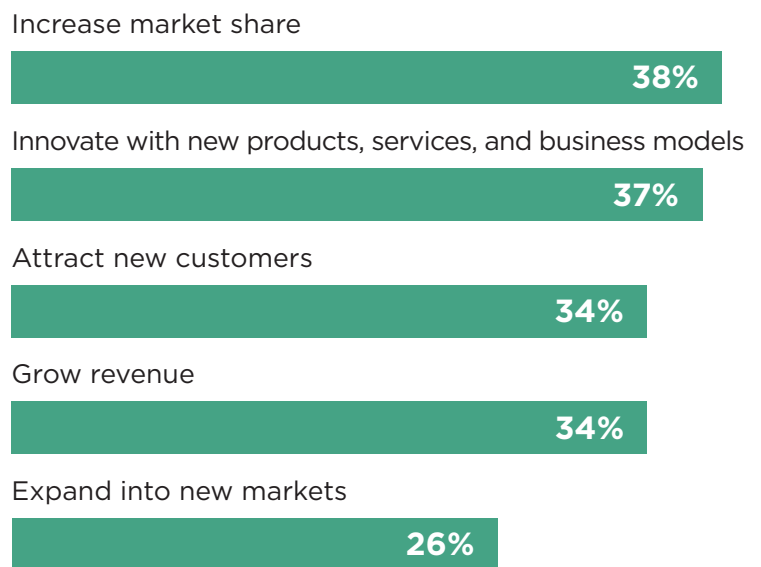
How to remain competitive:

“We are concentrating on supply chain optimization, which entails optimizing the supply chain to cut lead times, inventory costs, and increase responsiveness.”

— A Chief Information Officer in Singapore

Figure 1: What are your organization’s top business objectives for the next two years?

Select up to five; top five answer choices shown.



More midsize industrial manufacturers have seen profitability gains than respondents in any other industry (82% vs. 71% survey average). However, only 12% say this growth was over 5%—indicating an opportunity for these organizations to re-strategize, innovate, and boost performance.

Barriers to achieving future goals

Preparing for a technology-driven future is critical for the industry, with over half (55%) saying their organization is most focused on integrating the next wave of technology advancements as a key strategy for gaining a competitive advantage. In an environment already fraught with skills gaps and workforce shortages, having to execute tasks manually makes achieving growth and innovation objectives even more challenging.

Midsize industrial manufacturing organizations will struggle to achieve their lofty growth and innovation objectives without first overcoming the risks associated with businesses of their size. Three key areas of concern are:

■ **Product innovation:** Industrial manufacturers are concerned about the risk of becoming obsolete if they don't keep up with the pace of innovation (34%). This is key as more than a third (37%) say innovating with new products, services, and business models is a priority.

■ **Talent:** All midsize organizations in our survey face talent issues to some extent, but industrial manufacturers are slightly more

likely to cite this as a significant risk (39%). As digitalization has introduced new skills requirements, finding qualified employees will be an ongoing challenge.

■ **Macroeconomic issues:** As supply chain-centric firms know all too well, global issues beyond their control may disrupt operations and impact profitability. Roughly one third say the rising cost of materials (34%) and the substitution of materials they use (34%) present a significant risk to the business over the next two years, while 26% are worried that cheaper imports of a similar or lower quality will disrupt profitability.

How to remain competitive:

“With the major shift towards automation within the industry and training the existing workforce to skill up and increase efficiency, this would be a major competitive advantage.”

— *Direct report to a Chief Sustainability Officer in Canada.*

Mitigating risk through cloud and AI

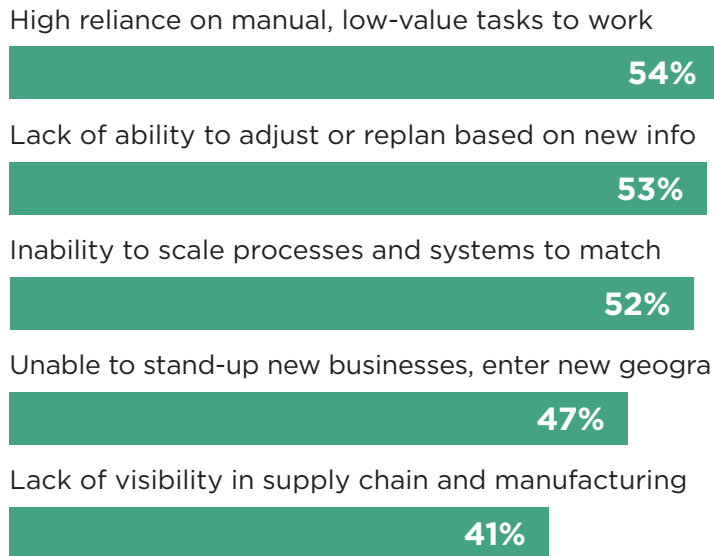
Aging technology stacks are falling short of expectations and hindering industrial manufacturers from reaching their growth aspirations, as over half of respondents say their IT infrastructure is overly reliant on manual, low-value tasks to overcome deficiencies. This patchwork approach does not allow manufacturers to scale processes and systems to match organic business growth, nor does it grant them the flexibility to adjust and replan based on real-time information or shifting priorities. This can result in delayed orders and delivery times as well as customer dissatisfaction (Figure 2).

Cloud-based technologies can help bring about fundamental change. Today, about four out of every five industrial manufacturers are using cloud solutions, with benefits ranging from improved employee experiences (41%), increased agility (40%), reduced costs (36%), and greater innovation capabilities (30%).

Industrial manufacturers are ahead of their peers in other industries when it comes to leveraging ERP solutions (71% are using this technology today) and other technologies that boost their ability to manufacture and deliver goods—

Figure 2: What are the key areas where your IT infrastructure is impacting your business’s ability to scale?

Select up to three.



specifically logistics (69%), supply chain (69%), and procurement software (61%). Leveraging a modern ERP in the Cloud supports the ability to scale sustainably with less complexity, provides end-to-end visibility, and offers continual technology updates.

But efficiency is driven by knowledge, and knowledge is acquired via strong data processes. Industrial manufacturers understand this connection. About four in five see the value of integrating data as a moderate or significant driver of new business model creation (85%), data accuracy and security (81%), and process automation (78%). Still, a significant cohort are dragging their feet: 46% are not using data management and analytics software today.

Unless data management practices improve, many industrial manufacturers will be left behind in the race to AI excellence. The industry as a whole is already behind other industries in AI adoption—only 18% are using AI in some way today—but many plan to begin their journey by adopting AI in the next 12 months. Doing so without first addressing data management woes

How to remain competitive:

“Manufacturing processes are being transformed by the use of Artificial Intelligence and big data analytics.”

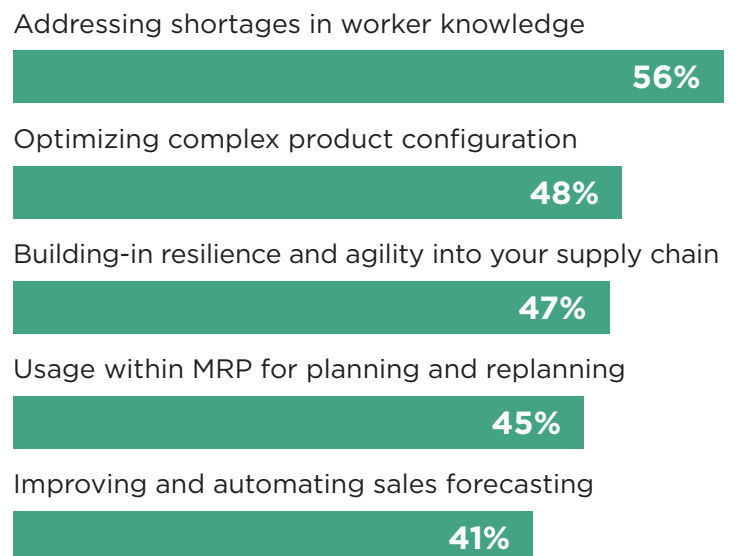
— A Chief Executive Officer in France

may leave manufacturers spinning their wheels and getting minimal value from investments.

Industrial manufacturers would be wise to fix data processes and derive insights using AI—and fast, as many executives have already identified business needs where these algorithms will benefit them the most. Respondents plan on using future technologies (AI included) to address manufacturing knowledge shortages among the workforce, provide more efficient and accurate customer guidance, and automate areas like customer support. They also expect to use these advancements to optimize complex product configuration based on needs, attributes, and past order histories, as well as building a more resilient and agile supply chain (Figure 3).

Figure 3: How is your manufacturing enterprise planning to leverage emerging technologies like AI in your business processes?

Select up to three.





As industrial manufacturers adopt new technologies and transform their supply chain, changes in global sustainability standards will force them to adjust how they design, create, deliver, and dispose of physical materials. Software exists to guide manufacturers on this journey—in fact, 22% already have software in place to monitor sustainability efforts. Sustainability efforts of all types benefit the business, and industrial manufacturing

organizations are a shining example: they are more likely than nearly all other industries to say tracking and reducing corporate emissions (53% vs. 45% survey average), collecting ESG data (54% vs. 42%), complying with supply chain transparency regulations (54% vs. 42%), and building recycling or circular economy elements into products and services (56% vs. 43%) have already brought value to the firm.

Conclusion

With industrial manufacturers focusing on growing efficiently, cloud solutions—specifically Cloud ERP—offer the ability to adopt and scale end-to-end processes across the business. Those in the industry should consider the following actions:

1. Automate business processes and explore ways to leverage AI to become more agile and efficient.

Speeding up typical commodity processes like make-to-stock and make-to-order will free your workforce to focus more on innovation and differentiated processes.

2. Upgrade your IT infrastructure.

Disconnected systems and legacy technologies require extra attention during digital transformation planning. Creating and simplifying end-to-end processes in the cloud will allow your business to adopt new technology solutions and scale.

3. Embrace sustainability.

Staying compliant with global ESG mandates can unlock a variety of unexpected benefits for your business. Make sure your business has the right software in place to measure sustainability data so they can adjust manufacturing operations effectively and meet industry standards.

Take the next step

Please contact your SAP partner to learn how SAP technology can support your growth.