



Key Factors in Optimizing Complex Manufacturing Businesses



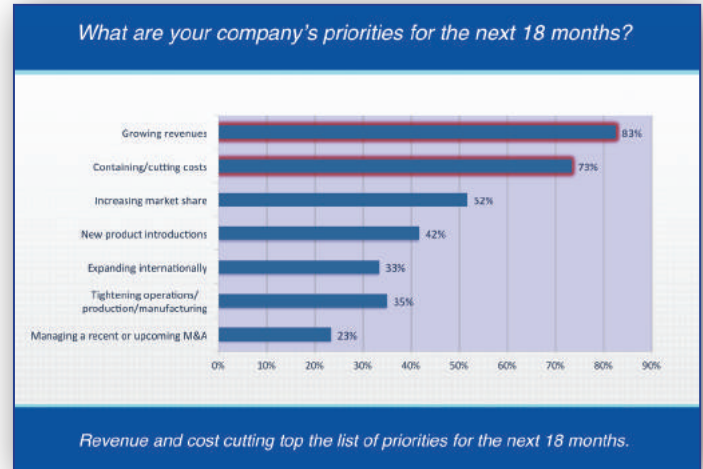
Survey of executives across functional areas provides insight into boosting revenue and improving operations with Enterprise Resource Planning systems

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Executive summary

Growing revenues and cutting costs are an age-old remedy for increasing profits, so it should come as no surprise that manufacturers are focused on those tried and true basics as they continue the climb out of the economic downturn of the last few years. But despite what many consider to be a weak recovery, executives across functional areas of discrete and process manufacturing companies are largely committed to investing in product innovation and expanding in emerging markets.

Those are among the key findings in a recent survey on optimization trends in ERP usage by market research firm GatePoint Research.

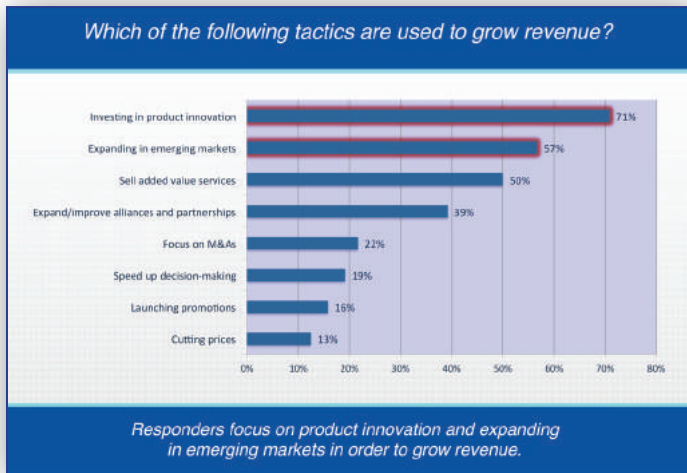
These executives shared their top priorities for boosting revenue and improving operations. In particular, they provide insight into how current ERP systems are performing in helping businesses meet their goals and what needs to improve, as well as which processes they believe offer the best potential for improvement. More than one-third indicate that manufacturing operations are increasingly complex and almost 90 percent rate the need to address the challenges of complexity at three or above on a five point scale.



Taking Advantage of Revenue Opportunities

Following one of the worst economic downturns in modern history, and one that hit manufacturers particularly hard, the North American outlook for the industry is moving in a positive direction, albeit at a tepid pace.

After relatively dynamic growth in the first half of 2012, “Manufacturing output growth in the United States slowed in the second half of 2012 and decreased to 2.8 percent in the fourth quarter,” according to the United Nations Industrial Development Organization (UNIDO)¹. Meanwhile, credit crises among Euro zone countries continue to dampen the overall global recovery.



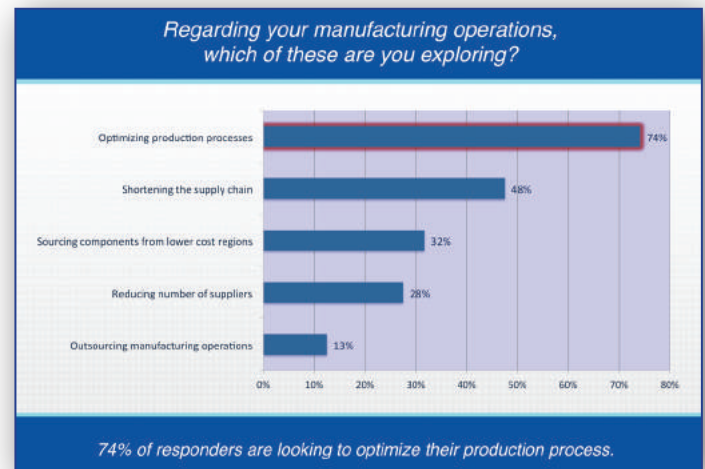
The global economy, increased competition from emerging markets, complex supply chains, increased compliance requirements, and the volatile costs of raw materials are forcing manufacturers to monitor and react to vast external issues, as well as to manage their own internal productivity.

So it should come as no surprise that executives in manufacturing companies in North America are intently focused on related business goals of growing revenues and cutting costs. When GatePoint asked these leaders to indicate their top priorities over the next 18 months, an overwhelming 83 percent checked the revenue growth category, while 73 percent checked containing/cutting costs. The only other category selected by more than half of respondents was that of increasing market share, at 52 percent.

The top tactic for growing revenue, cited by 71 percent of those in the survey, is investing in product innovation, perhaps reflecting the belief that after such a long downturn now is the time to capitalize and take advantage of a new growth wave. That might explain why 57 percent indicate they are expanding in emerging markets. Many apparently are focused on new domestic opportunities, because just one third indicated that expanding internationally is a priority, perhaps reflecting the uncertainty over global recovery.

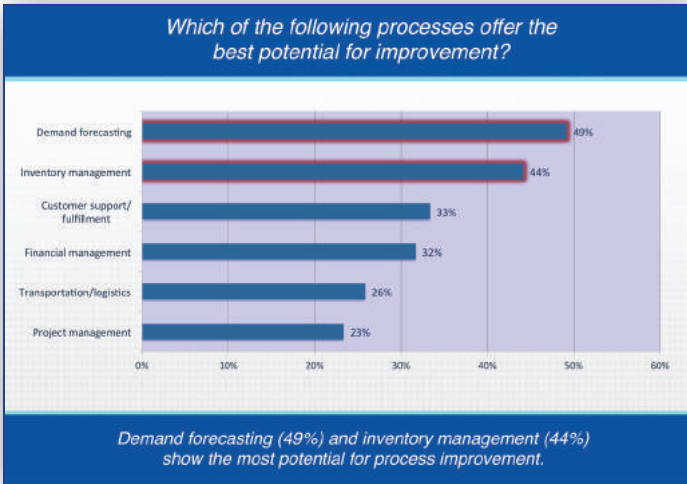
Meanwhile, about 4-out-of-10 (42 percent) said they are prioritizing new product introductions and 35 percent say that tightening the areas of operations, production and manufacturing are a priority. Just 23 percent indicate that managing a recent or upcoming merger or acquisition is a priority. Other opportunities for expanding revenue, according to 50 percent of the executives, lies in selling added-value services and 39 percent are expanding or improving alliances and partnerships.

“Manufacturers can extend revenue streams by adding services such as installations, repairs and maintenance,” says Jack Bullock, senior vice president and general manager, Infor System i Solutions. “They can also leverage their information systems to identify new niche markets and niche products while increasing collaboration with customers with services such as design to order and engineer to order. The ability to track the complexity of unique SKUs is vital to ensuring supply inventory needed to fulfill these services.”



¹Source: UNIDO, “World Manufacturing Production—Statistics for Quarter 4, 2012,” March 2013. http://www.unido.org/fileadmin/user_media/Services/Research_and_Statistics/statistics/publication/QuartProd/STA_Report_on_Quarterly_production_2012Q4.pdf

3 Five Key Factors in Optimizing Complex Manufacturing Businesses



Tuning Up Operations & Processes

Optimizing production processes heads the list of what executives are exploring to improve operations, selected by 74 percent of those in the survey. Just slightly less than half—42 percent—say they are exploring ways of shortening the supply chain, although only 28 percent indicate they are seeking to reduce the number of suppliers they’re dealing with.

“As manufacturers deal with the growing complexity of supply chains and distribution channels, the ability to tailor reporting systems and metrics is increasingly important so that they are able to spot potential issues as soon as possible and adjust processes before they turn into real problems,” says Infor’s Bullock.

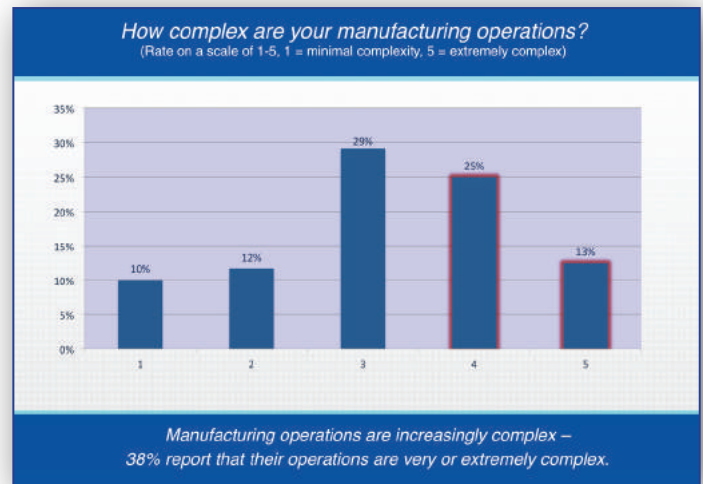
Just a third of those surveyed say they are looking into sourcing components from lower cost regions and even fewer—13 percent—are looking into outsourcing manufacturing operations. That may be an indication that the outsourcing shift has indeed peaked—at least for now—due to a combination of instability in foreign regions, rising wages in countries such as China and India, as well as lowered costs for keeping business in North America. However, there have been frequent predictions over the past decade that the outsourcing trend has crested.

ERP systems are almost ubiquitous in today’s manufacturing companies for monitoring and automating business performance functions. Just 7 percent of respondents indicated their organization isn’t using this technology currently. ERP systems span functional areas across the manufacturing enterprise, from managing the customer lifecycle, to improving quality to greater visibility into financials, let alone optimizing supply chain and distribution channels.

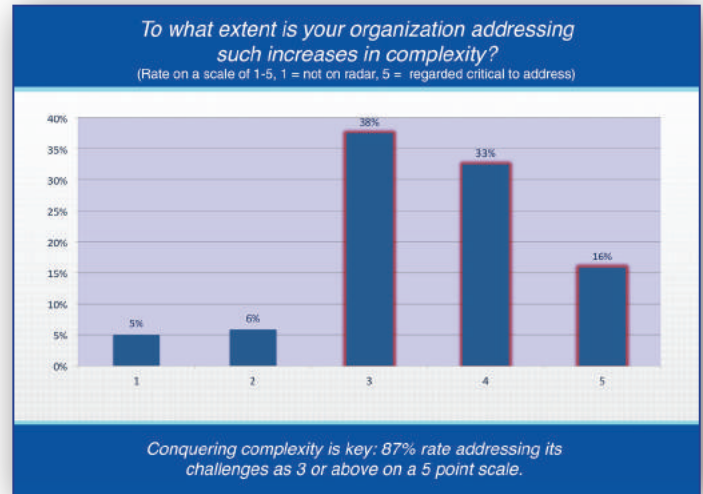
Utilizing ERP Across the Enterprise

Without a doubt, ERP has a great impact on finance and accounting. In fact, 59 percent of the executives in the survey say that is where their organization gets the most benefit from ERP. A third, however, say ERP is vital across all aspects of their organization, while lesser amounts give the nod, in descending order, to purchasing, inventory control, manufacturing operations and sales.

Those perspectives may also reflect how modern an ERP implementation is in each respondent’s organization and how often it has been updated. Over a span of more than 20 years, ERP software has undergone a significant transformation. While early systems were purchased and used primarily for financial applications, order management, purchasing, and manufacturing, today’s systems are designed for broad use across the enterprise.



“Newer ERP systems can include specialized applications for supply chain management, customer relationship management, human capital management, product lifecycle management, enterprise asset management, and expense management,” says Andrew Kinder, senior director of Industry & Solution Marketing for Infor. “Many manufacturing concerns need both a general ERP and specialized business applications, which requires middleware able to handle the integration of information across the enterprise.”

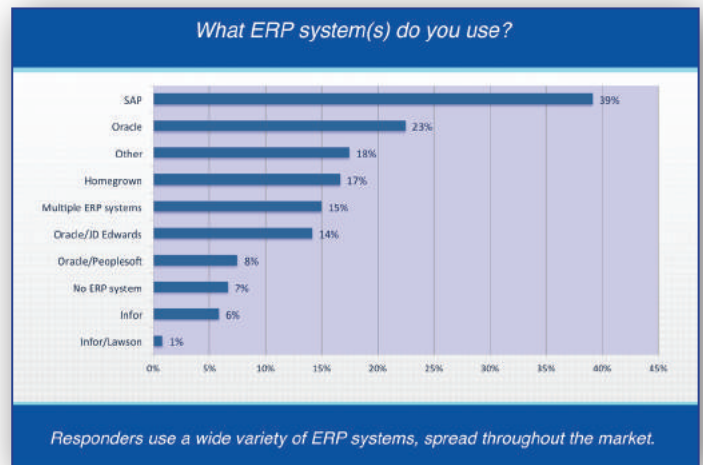


The evolution of ERP plays well into the needs of today’s manufacturing enterprise. The executives polled in this survey were asked which of their processes show the most potential for improvement and almost half (49 percent) see a need for improvement in demand forecasting, while slightly fewer (44 percent) see the need for improvement in inventory management. Manufacturing applications should incorporate business intelligence and performance management software to track performance across critical business metrics.



According to Kinder, manufacturers are selecting Infor ERP solutions to take advantage of a flexible, loosely coupled architecture built on the language of the Internet—html—so that they can leverage Infor ION middleware and easily add specialized business applications for areas in their operation requiring more in-depth functionality.

Those applications, Kinder says, include traditional supply chain management (SCM), product lifecycle management (PLM), and enterprise asset management (EAM) as well as solutions to meet the emerging needs for mobile access and social collaboration. “The manufacturing environment is rapidly changing. We believe flexibility is going to be essential for the manufacturer who wants to adapt and respond quickly to changing market demands,” Kinder adds.



Demand forecasting capabilities of today’s modern ERP systems can provide advanced statistical analysis combined with market knowledge gained through internal and external collaboration to bring pinpoint accuracy to demand plans, drawing on business intelligence analytics and insight into inventory and supply chain metrics.

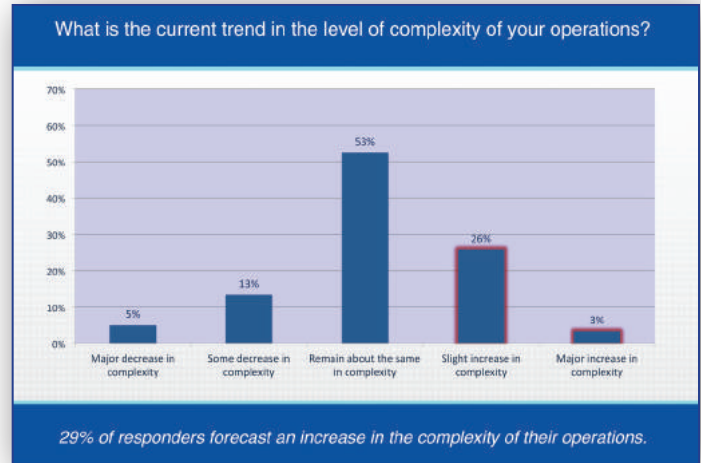
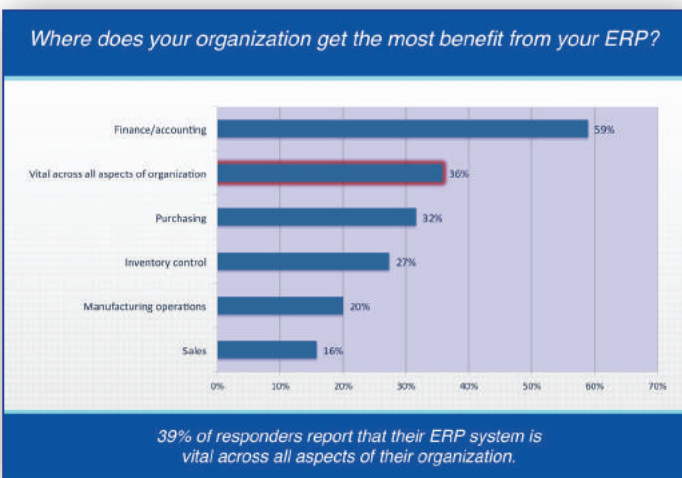
Finding Harmony Among Diverse Applications

A substantial number of the polled executives (15 percent) indicate that there are multiple ERP systems in use at their organizations. That often results from acquiring a business that had an existing ERP system in place different than that in use at the company making the acquisition. It may also be a result of distributed decision-making and the ability of new business units to select a more up-to-date system than is being used at older business units.

“The ability to connect these systems is crucial to providing the information flow to feed the advanced analytics capabilities that manufacturers are relying on to provide management with insight into the business that is needed to make critical decisions,” said Mark Humphlett, director of marketing with Infor.

Among survey respondents utilizing a single brand of ERP, the selections are significantly diverse. Older and more established solutions such as SAP (39 percent of respondents) and Oracle (23 percent) are closely followed by “other” (18 percent) and homegrown (17 percent), while lesser amounts rely on older acquired brands such as JD Lawson and PeopleSoft.

Undeniably, the survey indicates a wide variety in ERP usage throughout the market. The reasons for using a particular branded solution undoubtedly vary broadly, and may be the result of long-term loyalty, unwillingness to migrate to a new solution, the particular fit of a more specialized ERP provider, or simply a matter of budget priorities.



Coming to Grips with Complexity

Complexity in manufacturing operations is a significant factor faced by executives polled by GatePoint Research. On a scale of 1-to-5, 87 percent of the respondents rated addressing increased complexity as a 3 or above.

“An ERP system that meets manufacturers’ needs today has to be able to help the business deal with change, which can come in the form of a shift in market preferences, interruptions to the supply chain, new regulations, or new competition able to undercut pricing,” says Ross Freeman, senior product manager and strategy lead, Infor System i Solutions. “An ERP solution that will grow with you as you’re expanding and enables you to manage complex supply chains is a critical asset in dealing with global market issues.”

When significant changes like these occur, manufacturers can lose valuable productivity as they adapt and refocus, which can be disruptive to complex processes, and may involve new procedures and retraining personnel, or more significant retooling and re-engineering actions.

The Gatepoint survey asked executives to rate the current complexity of their manufacturing operations and the largest group of 38 percent rated it 4 or 5 (extremely complex) on a 5-point scale, while 22 percent rated it 1 (minimal) or 2, with the remaining 29 percent selecting the midway rating of 3.

That's not to say manufacturing company executives are overwhelmed by complexity, but neither are they underwhelmed. In fact, complexity seems to be a given for a majority of the executives, with 53 percent saying their expectation is that the current level of complexity will remain about the same. Just over a quarter (26 percent) expect a slight increase in complexity and a very small percentage (3 percent) expect a major increase. Relatively few (13 percent) expect to see some decrease in complexity and just 5 percent expect a major decrease.

Where they expect the greatest growth in complexity is in the area of business process, according to 39 percent. That was followed at 32 percent by organizational complexity, just ahead of supply chain complexity at 30 percent and IT and market complexity at 28 percent. Operational complexity was at the bottom of the list with a significant 24 percent and just behind product complexity at 26 percent.

Conclusion

Manufacturing Solutions for Today

Improving finances is the top issue keeping executives of manufacturing companies up at night. While the basics for manufacturing industry success are a constant—minimize costs, maximize flexibility, and keep your systems current—it's increasingly important to be able to adapt to rapid shifts in business and technology.

The GatePoint Research survey underscores that executives at manufacturing companies are focused on increasing revenue by focusing on product innovation and expanding into emerging markets. They understand that optimizing production processes is a key strategy to help support those goals.

Each step in the manufacturing process can dramatically affect profitability. Gaining visibility and efficiency is crucial for any company wanting to compete globally, open up new markets and leverage its investments to meet evolving business needs. ERP is a necessary component of manufacturing today, yet many firms fail to realize its full business benefits. The key drivers of cost containment, superior service and manageable growth stall without interoperability between business applications.

“Businesses should also expect their information systems to foster collaboration and communication,” says Kinder. “That's not just with regard to customers and suppliers, but also in providing information to skilled workers. The more easily they can consume relevant information, the easier it is for the business to speed up decision making.”

IBM and ERP provider Infor have teamed up to offer an integrated and optimized combination of software, hardware and services for modern manufacturers. The Infor Manufacturing Solution built on IBM Power Systems helps make best-in-class manufacturing possible. Infor Manufacturing Solution built with IBM Power Systems combines IBM POWER7 and IBM i with affordable enterprise software tailored to help transform business processes, backed by Infor services and support to make deployment and management simple. For more information on the Infor and IBM alliance, visit ibm.com/infor.

Survey methodology

Survey Background

GatePoint Research polled 120 executives at manufacturing firms, from a qualified list of more than 1,200 in functional areas including operations, manufacturing, finance, supply chain, and IT.

Almost all respondents (99 percent) in the survey are directors and above and 71 percent are vice presidents or C-level executives, providing a senior decision-making view into priorities and pressures facing manufacturing companies.

Just under half of the executives are employed at Fortune 1000 firms with revenue of more than \$1.5 billion. An additional 26 percent work at companies with revenue of between \$500 million and \$1.5 billion.

Participants were asked a range of questions in an effort to gauge current trends in business optimization issues—from the problems executives are grappling with to how they’re focused on resolving them. The executives shared insight into business priorities and where they believe their organizations are experiencing the most benefit from ERP.

Survey sponsors

About Infor and IBM

Infor offers an ERP system designed specifically to optimize manufacturing operations in order to make the organizations they support more flexible and competitive. By offering an integrated hardware and software solution, the Infor Manufacturing Solution built on IBM Power Systems helps make best-in-class manufacturing possible. Infor Manufacturing Solution built with IBM Power Systems combines IBM POWER7+ and IBM i with affordable enterprise software tailored to help transform business processes, backed by Infor services and support to make deployment and management simple.

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