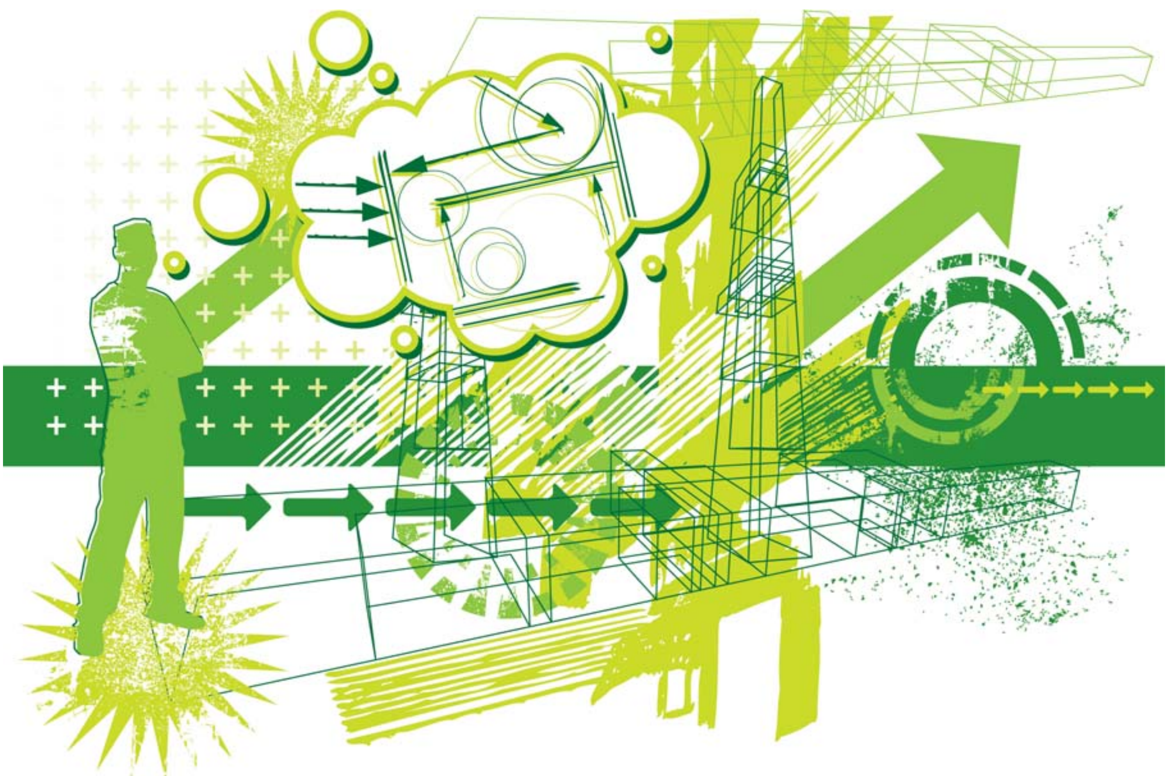
Economist Intelligence Unit

The Economist

A premium on efficiency
Midsize manufacturers confront the obstacles to growth

A report from the Economist Intelligence Unit



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Preface

A premium on efficiency: Midsize manufacturers confront the obstacles to growth is an Economist Intelligence Unit white paper, sponsored by SAP.

This is the second in a series of six reports addressing the opportunities and challenges faced by midsize manufacturers. The Economist Intelligence Unit bears sole responsibility for the content of the reports. The Economist Intelligence Unit's editorial team executed the survey, conducted the analysis and wrote the reports. The findings and views expressed here do not necessarily reflect the views of the sponsor.

Our research drew on two main initiatives:

- We conducted a wide-ranging online survey in October and November 2007. In all, 179 executives of midsize manufacturing firms took part from around the world.
- To supplement the survey results, we also conducted in-depth interviews with senior executives of midsize producers.

The author of this report was Stephen Harris and the editor was Denis McCauley. Mike Kenny was responsible for design and layout.

Our sincere thanks go to the survey participants and interviewees for sharing their insights on this topic.

March 2008

Executive summary

Midsize manufacturers have a strong appetite for growth, but they currently find themselves squeezed by the effects of softening demand in key markets, rising input costs and downward pressure on their own prices. To cope with these strains while continuing to expand, they will take great pains over the next three years to improve their operating efficiency, accelerate product development and sharpen their responsiveness to customer demand.

This paper, based on a global survey of midsize manufacturers, finds marked confidence amongst their executives that such efforts will help them surmount the obstacles to their continued expansion[1]. Pursuing greater operating efficiency—partly through internal improvement programmes—along with faster product development and sharper customer focus will, executives feel, also help their firms cope with increasing competitive pressures from larger rivals.

Other findings to emerge from the research include the following:

- Manufacturers can afford no let-up in their efforts to boost operating efficiency. Prices of many key commodities will remain high or even rise over the next two years, notwithstanding slower economic growth. The majority of survey respondents cite the rising cost of raw material and energy inputs as the most serious impediment to their firms' growth over the next three years. Many also foresee greater downward pressure on prices for their own products, portending a squeeze on margins.

- Midsize producers expect the advantages of flexibility, agility and customer intimacy that many hold over larger firms to erode as they expand in size. In particular, almost 40% of survey respondents are concerned that continued growth will impact negatively on their ability to change strategic course quickly. Many are also concerned that greater scale will reduce their operational flexibility and the ability to maintain strong customer relationships.

- IT is central to manufacturers' ability to retain these attributes and improve operating efficiency. Midsize producers have arguably been slower than firms in other sectors to deploy IT systems across all enterprise functions, but this is changing. Updating obsolete systems will be the main driver of new IT spending, but boosting efficiency, increasing management visibility into operations and improving customer service are also key IT investment drivers.

The *Midsize manufacturers* survey

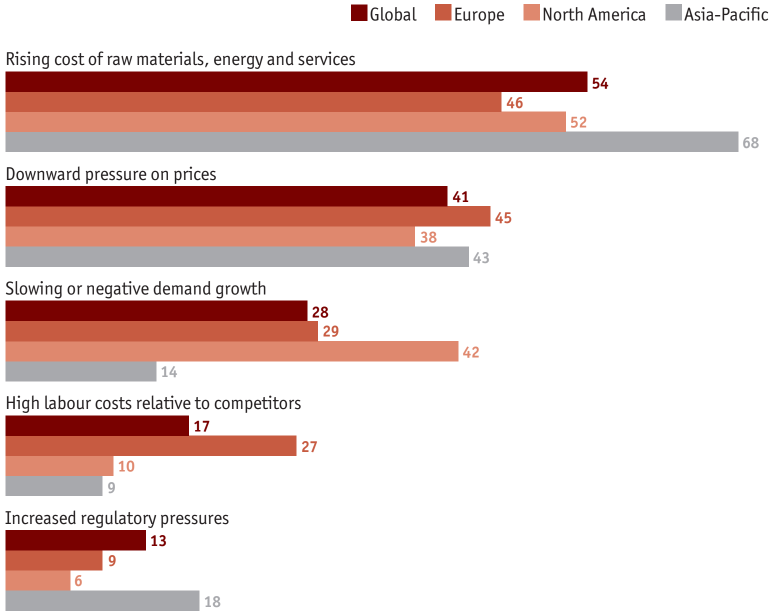
The analysis presented in this report is based on a research programme conducted by the Economist Intelligence Unit from October 2007 to January 2008. At its core was the *Midsize manufacturers* survey, in which a total of 179 executives participated. The survey group was cosmopolitan: 31% of respondents were based in each of Europe and Asia-Pacific and 28% from North America, with the remainder hailing from the Middle East, Africa and Latin America.

The sample was also senior: 46% of respondents were C-level executives such as CEOs, CFOs and CIOs, as well as owners. A range of industries was represented: 53% of executives were from process manufacturing firms in the chemicals, plastics, building materials, packaging, textiles and other sectors; 47% represented discrete manufacturers, including those in the industrial machinery, high technology, automotive and aerospace sectors. All the firms in our survey earn annual revenue of between US$20m and US$500m. For more detail on the survey sample, please see the Appendix to this report.

1. The first paper in this series, *Growth and complexity*, explored the growth strategies that midsize manufacturers will pursue over the coming three years. Future papers will examine discrete and process manufacturers' efforts to improve customer focus and boost operating efficiency.

Balancing cost and demand pressures

What do you believe will be the most serious impediments to growth in your company's key markets over the next three years?
(Top responses; % respondents)



Source: Economist Intelligence Unit survey

In the first paper of this series, we drew attention to the optimism exhibited by executives of midsize manufacturers toward their growth prospects over the coming three years. Such confidence seems all the more remarkable as the spectre of a US recession looms ever larger over the global economy. As the world's largest consumer of manufactured goods, saddled with a highly disadvantageous balance of trade, a contraction of demand in the US will hit export manufacturers throughout the world.

The negative impact on midsize producers will be heavier in some regions than others, however. The Economist Intelligence Unit anticipates strong local demand to support sustained expansion of Asia's manufacturing sector, and continued investment in fixed assets will help many European producers to weather the storm. Mirroring this variation in regional outlooks, 42% of North American respondents to the *Midsize manufacturers* survey cite slowing or negative demand expansion as a major impediment to their future growth, compared with 29% of executives from Europe and only 14% of those from Asia.

Of greatest concern to midsize producers in all regions is a manifestation of the recent boom years—escalating prices of key raw material and energy inputs. Asian producers have felt this upward price pressure particularly heavily. An example is China's Xinkai Automobile Group, a manufacturer of utility vehicles. Like most China-based producers, labour costs are not a concern for Xinkai, according to the firm's sales manager, Jimi Zhang, but "the increasing prices of raw materials—and the components of our cars such as bodies, doors, cargo and engines—are a significant factor. We buy these in China, but there has been a surge in prices for these products in recent years."

These pressures will remain over the short term, notwithstanding slower economic growth. The Economist Intelligence Unit expects average prices for steel, iron ore, industrial fibres, semiconductors and other commodities—not to mention that of oil—to remain near their peak 2007 levels over the next two years or even rise further.

Compounding the cost burden on midsize producers are expectations of sustained downward pressure on the prices of their products, which for many threaten to squeeze margins. In all regions, survey respondents point to this factor as among the top two barriers to their growth. Such pressure is no more keenly felt than among commodity process manufacturers. According to the marketing manager of one Asian producer of industrial packaging: "Downward pressure on pricing is the direct result of our crowded marketplace. There are too many players in our industry manufacturing products in our line. I foresee a move toward consolidation, where advantages of scale will intensify price pressure."

Midsize manufacturers' sense of optimism—or at least resilience—emerges even in a discussion of growth impediments, however. Lasse Pylväs, director of telecoms enclosure operations, Europe, with Scanfil, a Finnish contract manufacturer of telecommunications equipment, agrees that the rising costs of energy and raw materials is a concern but, he says, " these costs do not present any major threat to companies like us.... Our projections for growth will surpass the limitations of cost; we are in a business-to-business market where most of our customers—in telecommunications and industrial electronics—are growing."

Flexibility, agility and customer focus

Sustaining revenue and profit growth at relatively high levels, as the manufacturers in our survey intend, amidst rising input costs and emerging demand pressures will require a steady focus on improving efficiency. As mentioned in our previous paper in the series (and will be explored in detail in a later paper), boosting operating efficiency is high on their agenda. It will also require retention of the best attributes of their size—agility, flexibility and the ability to build deep customer relationships.

As midsize producers grow into larger entities, however, the advantages of agility, flexibility and customer intimacy that they hold over larger firms will tend to erode. Nearly 40% of survey respondents expect agility—their ability to change strategic course quickly—to erode as their firms expand. Many are concerned that greater size will negatively affect their flexibility (particularly in pricing) and ability to maintain customer intimacy.

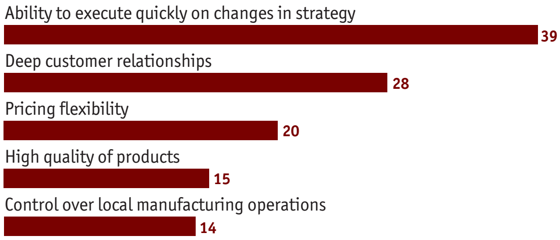
How will midsize manufacturers strive to retain these attributes and remain competitive with larger rivals? Streamlining product engineering to reduce time to market of new products is clearly one priority. Implementing internal improvement programmes, such as "lean manufacturing" and "demand-driven manufacturing", is another[2].

A prominent enemy of enterprise agility is the uncontrolled growth of inventory. Just-in-time (JIT) concepts reside at the core of lean manufacturing, and apply to raw materials, components, work-in-progress and finished goods alike. At Hypertherm, a US-based manufacturer of metal-cutting equipment, senior management has tried to instill a relentless skepticism of back stock, especially on products that are built to inventory. "Customer service relies upon us having our smaller equipment immediately available," observes CEO Richard Crouch, "but we seek to limit our inventory to a two-day supply. We apply similar discipline to our parts-room inventory."

Hypertherm's larger machines are built-to-order, and therefore create their own flow and pull of products through the production floor. As a result, in a technological environment where things are changing quickly, Hypertherm is not forced to dispose of overstocks at reduced prices and avoids any write-down on obsolete parts.

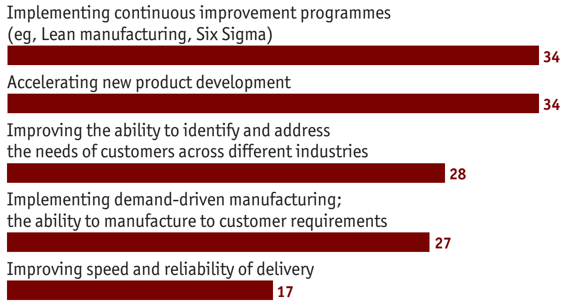
Achieving such flexibility as the customer base expands is a tall order. Adding to the challenge is the reality that customers are becoming more demanding—in terms of the levels of service, delivery speed and product customisation that they require.

In your view, which of the following attributes of your company is most likely to erode as it expands in size?
(Top responses; % respondents)



Source: Economist Intelligence Unit survey

In which of the following ways will your company look to compete effectively with larger rivals?
(Top responses; % respondents)



Source: Economist Intelligence Unit survey

2. Implementation of lean manufacturing (defined as the reduction of delivery times by eliminating non-value-added waste in the production process) and demand-driven manufacturing (building products in response to customer orders rather than building to inventory) will be discussed in more detail in later papers in the series.

One result for midsize producers is an increasingly complex set of planning requirements.

Some manufacturers carefully evaluate the potential risks presented by the customer list. Many have learned that building a careful blend of customer types and sizes is a good way to avoid over-reliance on a few bloated accounts that can quickly change with market forces.

Mr Pylväs of Scanfil is very clear on this topic. “The best way for us to keep pace with the changing needs of our customers is to have the right mix of customers. We select them based on their willingness to share risk with us, to prevent any single customer from getting a stranglehold on our entire business.”

He holds that a diversification of customer types is wise. “Scanfil services two major industry types: telecommunications and industrial electronics. They are not linked to one another, so a decline in the fortunes of one sector does not necessarily cause a similar reaction in the other.”

This strategy of customer diversification is over-arched with the need for current and reliable intelligence on market trends. “Scanfil stays aware of the limits of our markets and where they are moving. We try to remain flexible enough to meet the changing demand, and when demand evaporates, to reallocate assets and move into more promising products. Recently we have closed three factories and moved machinery between our own plants to target our customers in the best possible location.”

Where IT fits in

Achieving growth while improving operating efficiency, maintaining agility, accelerating product development and keeping pace with changing customer needs cannot be pulled off without the better use of information technology. In comparison with firms in other sectors, manufacturers—especially those of smaller scale—have been relatively slow to deploy IT systems across the range of enterprise functions, including front- and back-office activities.

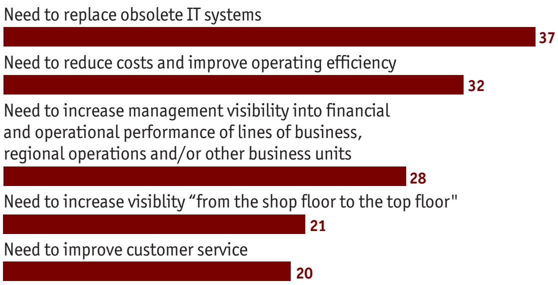
Accordingly, midsize producers' priority when it comes to IT investment over the next three years is to replace outdated systems. Beyond this, boosting operating efficiency and increasing management visibility into operations across the business will be key drivers of systems spending, along with improving customer service and increasing production flexibility.

No two manufacturers are the same, of course, and a range of different factors is driving midsize producers' decisions on where to focus new IT spending. Many are investing to keep pace with their customers. Jeff Morse, general manager of Cersosimo Industries, a US lumber producer, notes that his firm has made substantial investments in IT systems over the past few years. "Our business is relationship-based, and our network of lumber brokers and industrial clients have all moved to the Web as a way of communicating with us. We have moved with them."

Deployment of systems in back-office operations has also helped to ease some of Cersosimo's growth pains. Its ability to centralise billing and tracking receivables through IT, maintains Mr Morse, has been integral in allowing the company to open branch offices throughout a five-state region. "I can manage payroll, billings and accounts from six locations with a small staff in our headquarters. That cuts our overhead and improves our accounting performance."

Scanfil's Mr Pylväs attributes to IT his company's ability both to keep pace with its customers and also to adapt to changing market conditions. "Our flexibility is based upon clear and real-time communication with our customers," he maintains. "We have over 2,000 employees worldwide, and our in-house communication is likewise critical. By keeping the line between the operations group and the board of directors open, we can react to changing circumstances quickly."

What are likely to be the top two drivers of IT investment in your company over the next three years?
(Top responses; % respondents)



Source: Economist Intelligence Unit survey

Conclusion

Midsize manufacturers are determined to grow, even as the evidence of tightening demand accumulates. However, the combination of demand and cost pressures can often have a beneficial effect on productivity, provided that manufacturers respond appropriately. Resources must be more tightly managed, inventories must be reduced and levels of customer service and responsiveness must rise for the business to remain competitive.

The short-term demand outlook is sobering for manufacturers, particularly in North America, but it is not uniformly bleak in all regions and sectors, and the longer term outlook remains favourable. Attention paid now to further improving operating efficiency, and to enhancing responsiveness to customer demands—through better relationships, better analysis and greater production flexibility—will provide a sound basis for growth when market conditions improve.

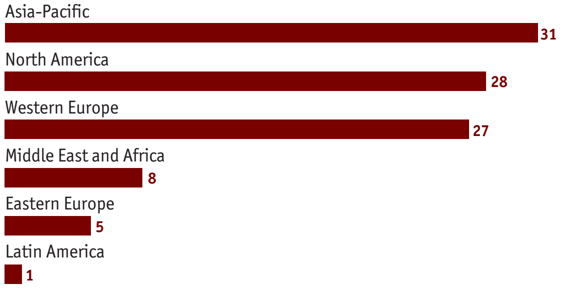
Future papers in this series will take a detailed look at how discrete and process manufacturers plan to address the customer focus and operating efficiency challenges.

Appendix: *Midsize manufacturers* survey respondents

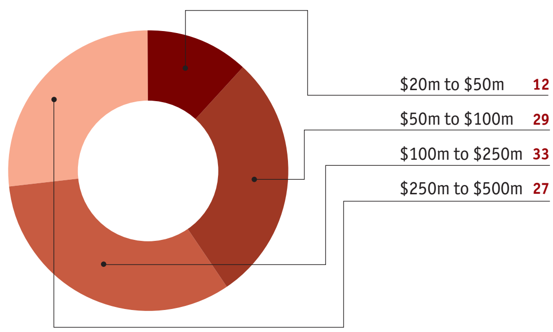
In October-November 2007, the Economist Intelligence Unit conducted a survey of 179 executives of midsize manufacturing firms from around the world. Following is a profile of the survey respondents. Our sincere thanks go to all who took part.

Please note that not all answers add up to 100%, because of rounding or because respondents were able to provide multiple answers to some questions.

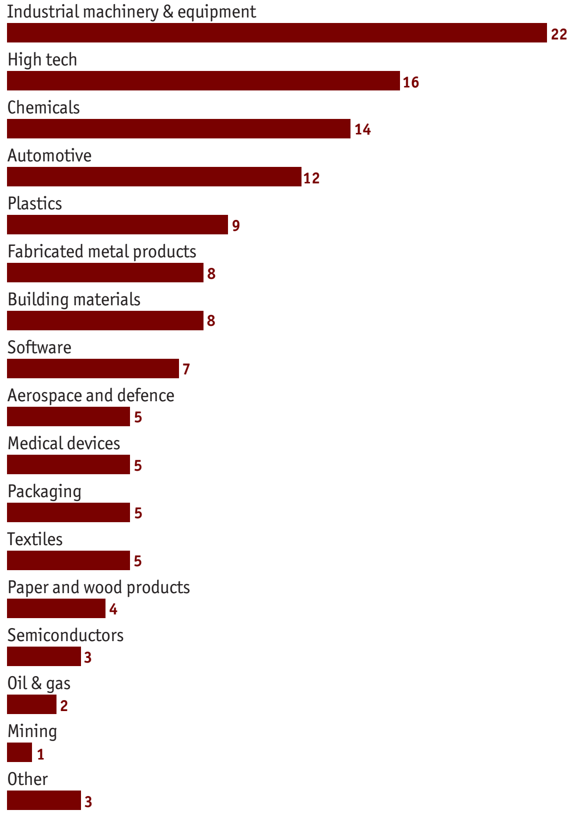
In which region are you personally based?
(% respondents)



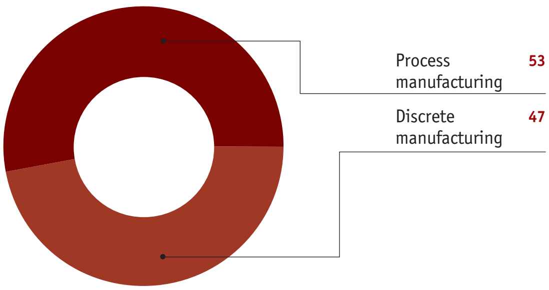
What are your company's annual global revenues in US dollars?
(% respondents)



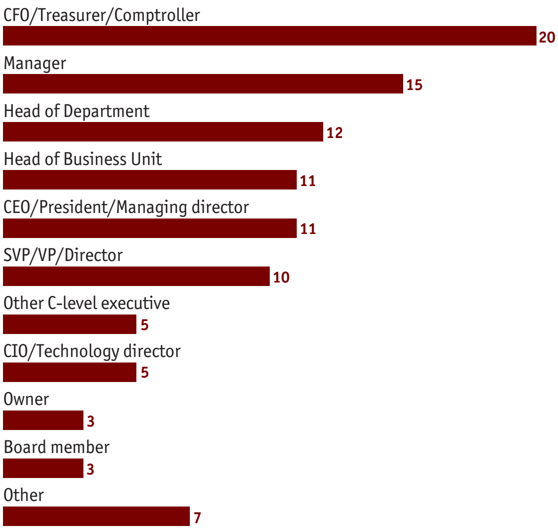
In what specific type(s) of manufacturing is your company engaged? Select all that apply.
(% respondents)



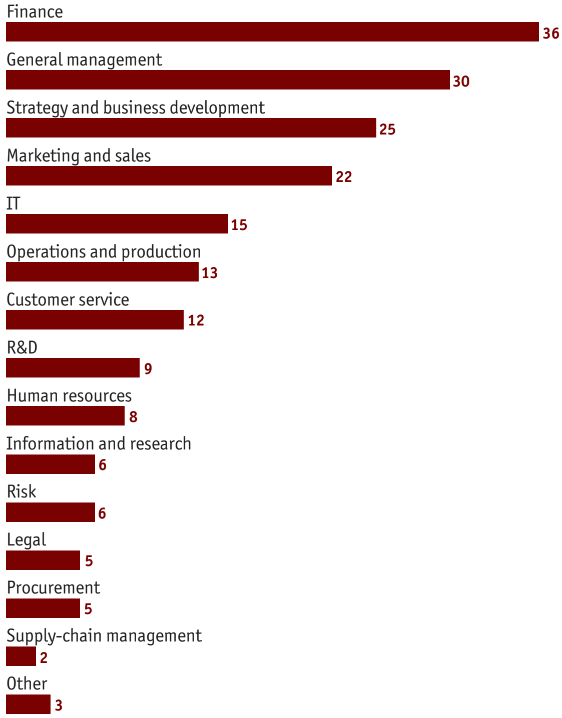
How would you describe the primary type of manufacturing that your company engages in?
(% respondents)



What is your title?
(% respondents)



What are your main functional roles? Please choose no more than three functions.
(% respondents)



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