Economist Intelligence Unit

The Economist

Reading the signals
Process manufacturers and customer demand

A report from the Economist Intelligence Unit

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SAP

Preface

Reading the signals: Process manufacturers and customer demand is an Economist Intelligence Unit white paper, sponsored by SAP.

This is the third 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, of which 94 hailed from process manufacturers.
- To supplement the survey results, we also conducted in-depth interviews with senior executives of midsize process manufacturers.

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.

April 2008

Executive summary

In decades past, building inventory was a midsize manufacturer's tried and tested way of guarding against uncertainty in the demand environment. The nature of manufacturing demand is changing, however, as customers seek ever greater flexibility in their suppliers, whether it comes to delivery schedules or product customisation. For midsize manufacturers, competing effectively in this environment requires a much sharper focus on the customer—for information, feedback and clear demand signals—to ensure that production matches precise customer needs.

This study, based on a global survey of manufacturing executives, confirms that midsize process manufacturers—those engaged in production where chemical change of materials takes place, and the focus of this report[1]—clearly understand the importance of becoming more responsive to customer demand and needs. They are pursuing this agenda along many fronts, ranging from the better training of sales staff to glean information about changing customer needs, to the closer integration of customers into product design.

The implementation of demand-driven manufacturing—developing the ability to produce to customer order rather than to inventory—is now at the centre of many producers' operational improvement efforts. Nearly 70% of process manufacturers surveyed for this report believe that becoming demand-driven is critical or important to the success of their growth strategy over the next three years.

Other key findings of the research including the following:

- Most process manufacturers in the survey say they are "not there yet" on the road to become fully demand-driven, but they are developing plans to take fuller advantage of manufacturing to order. Only 14% of process manufacturing executives say they have no plans to implement a demand-driven strategy.

- Process manufacturers will necessarily look to IT for wide-ranging support in their efforts to become demand-driven. When asked where IT will have the largest impact in helping to improve operational efficiency, improving order management is at the top of survey respondents' list. Nearly one-third of respondents also say that improving customer-driven order placement and tracking is the main way they plan to use IT to become demand-driven.

Who took the survey?

Fully 179 executives from around the world participated in the *Midsize manufacturers* survey, conducted in October-November 2007. This includes 94 respondents from process manufacturing firms, from the chemicals, plastics, building materials, textiles, metal-processing and other sectors. The analysis in this report is based on this sub-group of 94 process-manufacturing executives.

The respondents in the sub-group were truly global: 42% were based in Asia-Pacific, 25% in Europe, and 21% in North America, with the remainder hailing from the Middle East, Africa and Latin America. The sample was also very senior: 43% were C-level executives such as CEOs, CFOs and CIOs, as well as owners. 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. This is the fourth in a series of six papers on the challenges and opportunities faced by midsize manufacturers. A companion paper to this one addresses the plans of discrete manufacturers to become more customer-centric.

Gaining insight into customer needs

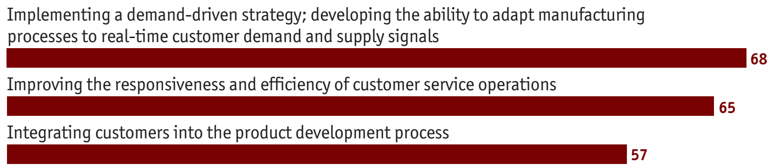
Process manufacturers frequently create the materials and product inputs that are required by their customers downstream. As suppliers, they are constantly challenged on the prices of the commodities they produce, and on other terms, as their customers are under extreme pressure to reduce the input costs of their products. "Now more than ever, our clients have better access to crucial information, such as product specifications, price, quality and reliability" says June Kim, international sales manager with Dong Kuk Steel Company, a midsize producer based in South Korea. "It makes it much easier for them to compare us to our competitors."

The three key competitive differentiators for any supplier are price, service and quality. When price movements are hemmed in by competitors and low margins, service and product quality are the only tools left to control. It is no surprise, therefore, that successful process manufacturers are frequently characterised by exceptional service and a high-quality product, and they can sometimes get a small price premium or additional volume if their differentiation is truly superior. These approaches are borne from developing an understanding of the customer, as well as the customer's customers.

Process manufacturers clearly understand the importance of becoming more responsive to customer demand and needs, judging by the results of the survey, and that operations need to be adjusted to make this happen. Nearly two-thirds of survey respondents, for example, consider the improvement of customer service operations to be critical or important to the success of the company's strategy over the next three years.

This view is echoed by Steve Voigt, president and CEO of King Arthur Flour, a 218-year-old US manufacturer of baking flour currently employing 170 employees and earning US$63m in annual revenue.

How important are the following initiatives to the success of your company's overall growth strategy over the next three years?
(% responding "critical" or "important")



Source: Economist Intelligence Unit survey

"In the mid-1990s, we experimented with many kinds of direct contacts with our customers. Mailers, phone calls, questionnaires, e-mails and all the elements of a standard 'ladder of customer contact' were initiated and tracked. After a few years of seeing little improvement, we reallocated all of those resources to create an enhanced response mechanism that treats every customer inquiry with the utmost respect and importance."

Developing customer intimacy

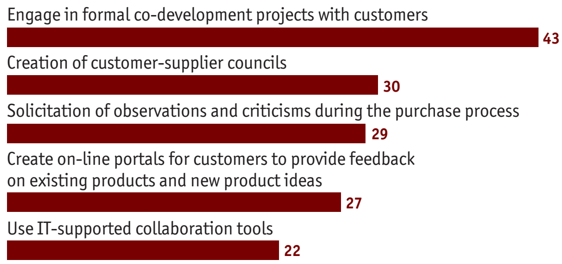
This appreciation for customer intimacy is pervasive among our respondents, and is an area where midsize and small manufacturers traditionally enjoy an advantage over their larger rivals. When asked how they can keep pace with the changing demands of customers, process-manufacturing executives cited as their top responses the better training of sales people to solicit customer information and regular visits of production and design managers to customer sites.

Sometimes, developing a keen understanding of customer needs can create opportunities to do more than supply them with products. Tim Tate, president and CEO of Stewart and Tate, a privately held mining company headquartered in the US state of Maryland, cites an example of how in-depth knowledge of one customer's operations led to vertical integration for his firm. "Our growth has been built upon our understanding of our customers' challenges in a way that increases our access to market share. A few years ago, we bought one of our largest customers, a producer of ready-mix concrete. By eliminating the redundant management of a downstream consumer of our products, we were able to reduce the cost and improve the competitive position of the finished product. By selling more concrete to end users, we pull more gravel out of our pits."

The Multi Glory Group, a fast-growing China-based manufacturer of down-feather textile products delivering to European, North American as well as Asian markets, has employed another means of improving customer knowledge. According to the firm's general manager, Zhou Cheng, Multi Glory has hired managers from some of its existing customers in order to better understand the latter's needs. Mr Zhou says he is convinced that recruiting management talent from the company's existing customer base has helped overcome many of the misunderstandings that frequently frustrate relationships with foreign buyers.

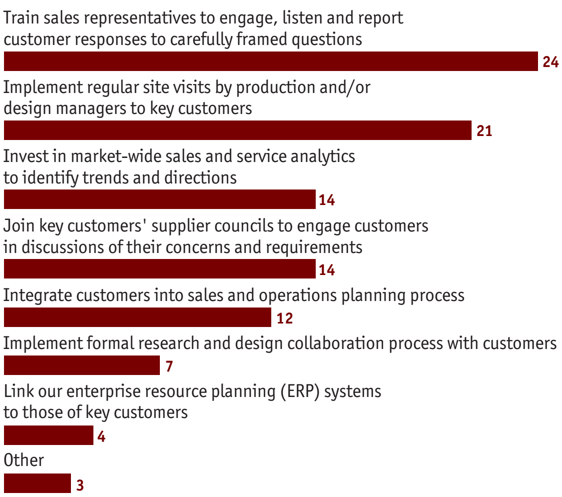
Since many process manufacturers can only produce to fulfil demand, excess inventory is less of a challenge for them than demand generation. Involving customers in the product design process, whether through formal co-development projects or the creation of customer-supplier councils, is another

With what techniques does your company plan to integrate its customers into the product development process?
(Top 5 responses; % respondents)



Source: Economist Intelligence Unit survey

What is the single most effective measure your company can take to keep pace with the changing demands of your customers?
(% respondents)



Source: Economist Intelligence Unit survey

priority for process manufacturers as they attempt to keep pace with demand.

James Hancock, managing director of Havelock Interiors, a UK manufacturer of interiors for retail and corporate customers, agrees: “It is very important to integrate customers into the product development and engineering process,” he affirms. Mr Hancock adds that it helps if clients can inspect final prototypes before manufacture. “The best thing is to engage clients at the earliest stage of their plans, although you can get resistance from designers… The closer we can be to customer plans the better—and cheaper.”

Becoming demand-driven

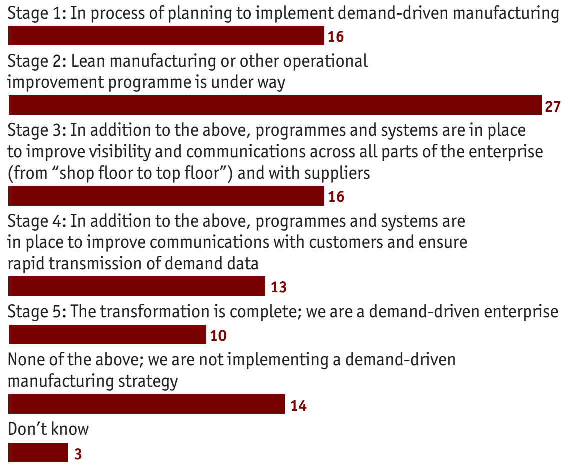
Understanding customer needs as they evolve is only part of the challenge. Manufacturers also need to be able to respond to these changes, often (and increasingly) in real-time. Process manufacturers are no exception: 68% of executives in the survey say that developing the ability to adapt manufacturing processes to real-time customer demand and supply signals is “critical” or “important” to the success of their growth strategy. In other words, they are intent on implementing demand-driven manufacturing.

Midsize process manufacturers believe implementation of a demand-driven strategy will, among other benefits, provide them with a competitive advantage over their larger rivals. With smaller fixed costs and a degree of distance from the end user, midsize producers can concentrate on fitting seamlessly into a larger supply chain.

Most process manufacturers in the survey say they are “not there yet” on the road to becoming fully demand driven, but they are developing plans to take fuller advantage of manufacturing to order. A minority of 14% of process manufacturing executives say they have no plans to implement a demand-driven strategy.

Australian Vinyls is a monopoly supplier of PVC resins within Australia and, according to Michelle Ash, general manager for operations, it can sell all the PVC it makes and imports. Ms Ash believes firms in other industries are more demand-driven than hers but, she says, Australian Vinyls has been paying more attention to customer-demand patterns in recent years, since “we manage our plant on short-run stockpile material in order to manage costs.” Among other things, the company tracks its customers’ silo levels using tools integrated into their inventory-tracking systems.

At what stage is your company on the road to implementing a demand-driven manufacturing strategy?
(% respondents)



Source: Economist Intelligence Unit survey

Goldshield Group, a UK-based manufacturer of pharmaceuticals, operates in a market driven by demands for the latest and most improved formulations. “Demand-driven manufacturing is critical to us,” says CEO Rakesh Patel. “It allows us to leverage excess production capacity by making products that the market will pull through our customer’s businesses. It requires staying close to the market and the customer to get an accurate picture of future volumes.”

In a sector where traditional practices have led to a degree of mechanical reaction among producers to the marketing department’s forecasts, Goldshield is striving to spend more time listening to its customers. Says Mr Patel: “If our stocks run low, we are criticised, and we have concluded that it is no longer adequate to claim that ‘we never received the forecast’. We train our sales people to focus on lead-times with our customers, and transmit the sales trends of our customers to our production managers on as close to a real-time basis as possible.” He adds that “Our plants have learned the importance of reducing delays by

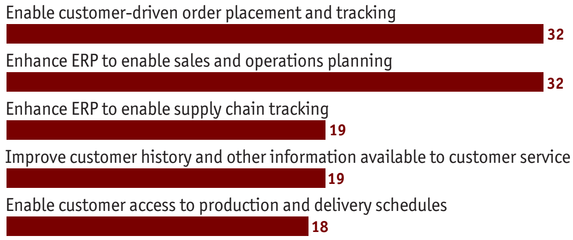
keeping manufacturing capacity available for more instantaneous reaction to less predictable orders."

This type of sensitivity to demand-driven techniques has produced a simultaneous increase in the customer's ability to participate in products under development, according to Mr Patel: "Manufacturers need customer feedback to develop more targeted products. In the past, we were more interested in conforming to the customer's specifications, leaving it to in-house technical and design teams to direct product characteristics. By establishing closer contact with our customers, we have better access to volumes of end-user data. Manufacturers need to be able to see what's actually being sold, so we can participate in developing a more desirable product in more appropriate quantities."

The adoption of a demand-driven mentality—and achieving the associated improvements in operating efficiency—can present itself as a burdensome requirement, but process manufacturers plan to use IT to help smooth the way. When asked where IT will have the largest impact in helping to improve operational efficiency, order management is among the top responses of process manufacturers. Nearly one-third of respondents also say that improving customer-driven order placement and tracking is the main way they plan to use IT to become demand-driven.

Mr Patel highlights the importance of IT to his firm's efforts to become demand-driven: "Goldshield is a niche manufacturer. As demand changes, we have sought to establish strategic alliances with our customers. This has affected our corporate structure and our use of technology. We have seen, for example, the importance of a link between EPOS [electronic point-of-sale systems] and our manufacturing system. We have to 'see' what is actually selling to better forecast demand."

What are the main ways in which your company plans to use IT to become a demand-driven enterprise?
(Top 5 responses, % respondents)



Source: Economist Intelligence Unit survey

Conclusion

Implementing demand-driven manufacturing, and instilling a demand-driven mentality throughout the enterprise, is closely interlinked with efforts to boost operating efficiency and to grow. Without successful efforts to, for example, reduce excess inventory and improve suppliers' performance, the flexibility required by a manufacturer to become more responsive to changes in customer demand is unlikely to materialise.

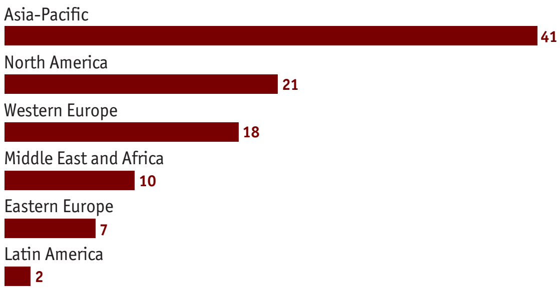
Making strides to improve operating efficiency is thus imperative if manufacturers are truly to become customer- and demand-driven and want to grow. The concluding paper in this series will look more deeply into the plans that midsize producers are putting in place to enhance operating efficiencies in the face of relentless pressure on margins.

Appendix: *Midsize manufacturers* survey respondents

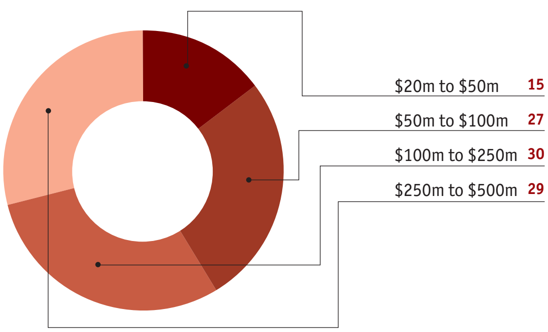
In October-November 2007, the Economist Intelligence Unit conducted a survey of 179 executives of midsize manufacturing firms from around the world. Of these, 94 hailed from process manufacturers. Following is a profile of these respondents. Our sincere thanks go to all who took part in the survey.

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.

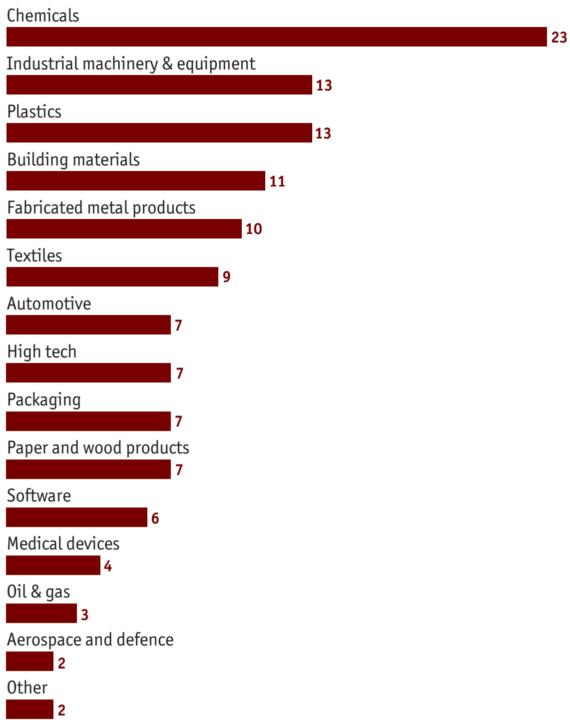
In which region are you personally based?
(% respondents)



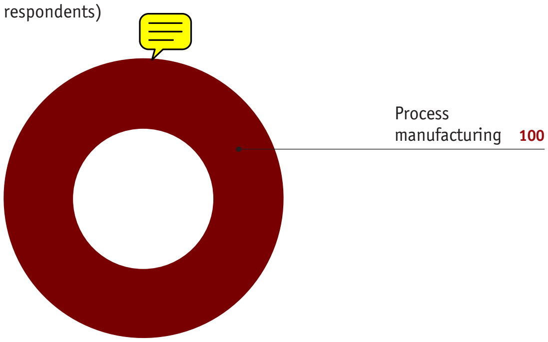
What are your company's annual global revenues in US dollars?
(% respondents)



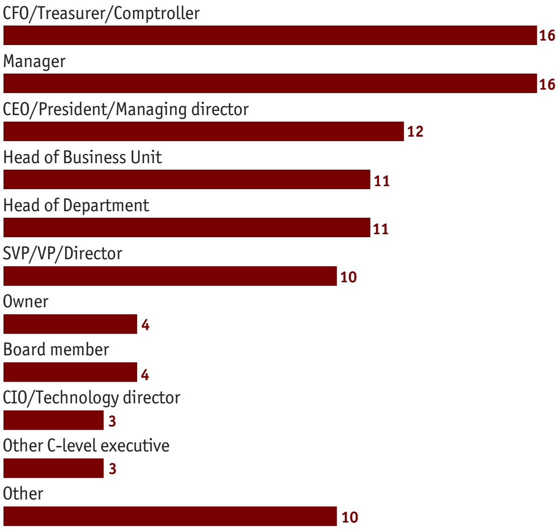
In what specific type(s) of manufacturing is your company engaged? Select all that apply.
(% respondents)



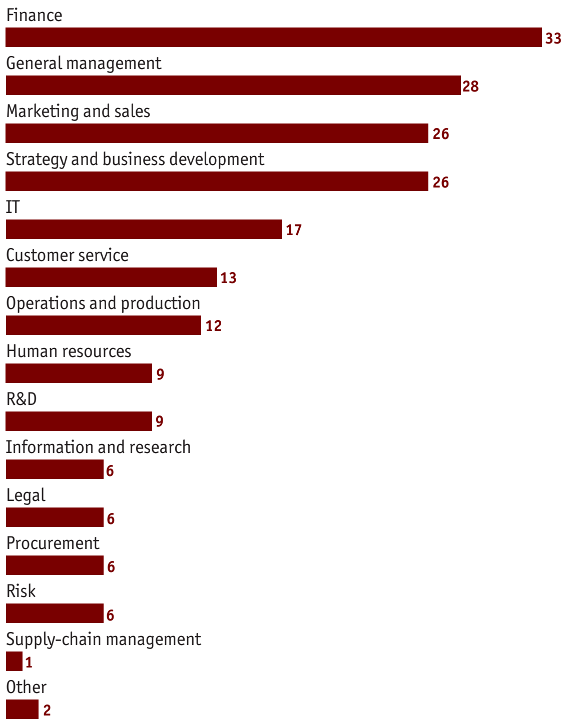
How would you describe the primary type of manufacturing that your company engages in?
(% respondents)



What is your title?
(% respondents)



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



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