PHOTOLIBRARY

Supply chain crunch

A wide-ranging survey of chemical producers and logistics providers by ICIS and J&M Management Consulting shows that high energy and fuel costs are sharpening industry focus on the supply chain

HELGE KOENIG/MANNHEIM

GIVEN TODAY'S climate of high energy and fuel costs, active supply chain management in the chemical industry is becoming increasingly important.

This is the main finding from a recent ICIS and J&M Management Consulting survey of producers and logistics providers (see box), carried out to discover and understand the leading issues in the sector today.

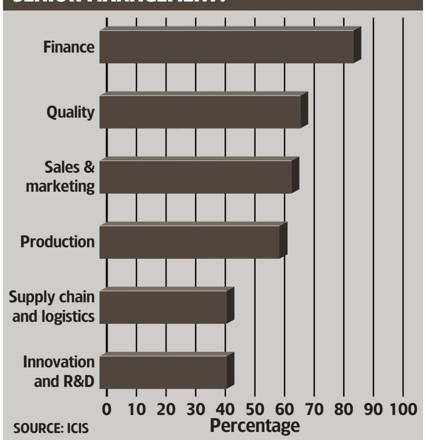
Of those responding to the survey, 84% cited the rising cost of energy and fuel as one of the most dramatic changes faced by chemical companies over the past three years. The resulting impact on raw material costs and transport and distribution costs has raised senior management's attention to supply chain and logistics issues and their role in improving business performance.

"The recent rapidly rising energy and fuel costs, and knock-on effects through business value chains, have probably given companies a taste of things to come, particularly as oil prices fall back again in the short term", notes James Black, chemical sector head at J&M.

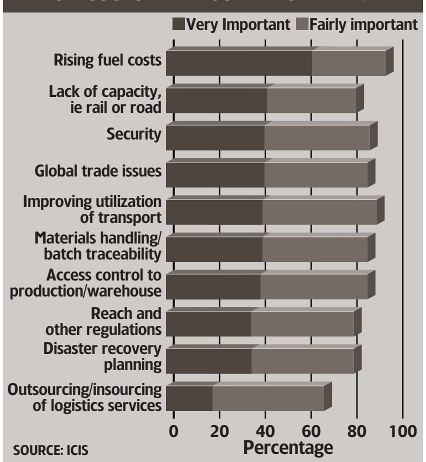
"For some companies, this has helped crystallize their longer-term strategic plans and the importance of end-to-end supply chain management, while for others, they continue to treat this as an operational issue that has gone away again for the meantime."

Over 88% of the survey's respondents mentioned that the business priority for supply chain and logistics had now moved up to become a top business priority in their companies, along with safety, health and environment (generally viewed as a fundamental licence to operate) and other key business

WHAT ARE THE PRIORITY FOCUSES FOR SENIOR MANAGEMENT?



WHICH ISSUES ARE MOST IMPORTANT?



STUDY METHODOLOGY

This study of chemical industry logistics issues was carried out by ICIS and J&M Management Consulting using a two-stage approach.

First, readers of *ICIS Chemical Business* were surveyed in April, at which point 283 companies with an average revenue of $3.9bn (€3bn) responding to an online questionnaire. Some 24% of respondents were typically senior managers (CEOs, chairmen, or vice presidents) with some 75% made up of general managers and functional managers with responsibility for supply chain, logistics or purchasing.

Second, the survey results were complemented with over 20 face-to-face interviews carried out across Europe by J&M consultants, to enable a number of issues to be examined in more depth.

The survey and interviews were undertaken under a confidentiality agreement and all comments are therefore nonattributable.

Initially, the study was positioned to focus on logistics issues. However, one of the first findings was that this terminology means different things to different companies. This ranged in some cases from "logistics solely means transport," to more typically "logistics is a fundamental part of supply chain and should be seen as supply chain and logistics," or "supply chain including logistics."

For the purpose of this analysis, the terminology has been adapted to refer to "supply chain and logistics" issues.

priorities, such as finance, quality, marketing and sales, production, and research and innovation. However, supply chain and logistics are still not seen as the top priority issue by senior management.

From detailed interviews carried out to complement the online survey of ICIS readers, it became apparent that the response of individual companies to the increased focus on supply chain and logistics fell roughly within three groups.

Black comments: "We typically found a couple of similar approaches to this increasing energy and fuel cost scenario. The majority of companies were looking proactively to continue to optimize costs through the chain; some were looking beyond this proactively to leverage value creation and profit impact jointly with customers; and a small amount were continuing to take an incremental reactive approach."

COST OPTIMIZERS

These are companies that take a proactive approach to improvement in existing supply chain and logistics operations. They are seeking to increase efficiency and effectiveness to improve delivered costs, reduce work in progress and finished product inventory requirements within the existing supply chain operations.

This approach includes examples of improving the distribution network footprint; improving planning effectiveness; changing delivery drop frequencies; improved segmentation of the supply chain for make-to-order versus make-to-stock; and closer operational coordinating of commercial, manufacturing and supply chain management leadership and decision making.

An emerging theme here was the concept of increased reliability in terms of reducing variability of supply and thus reducing the requirements for buffer/work in progress and inventory.

VALUE CREATORS

These companies are making a proactive review and adjustment to the overall business value chain and their offer to clients to optimize profit. This involves adjusting the balance between the customer value proposition (offer) and service levels, with asset utilization and effectiveness (production and distribution network) and inventory levels.

Within this group, pragmatic examples include: building up end-to-end full activity-based costing and profitability by customer and product; planning reductions in product and packaging complexity; reducing agreed response times and service levels with customers; agreeing more buffer inventory at customer locations; and changing production run lengths.

INCREMENTALISTS

These are reactive companies trying to keep business as usual by continuing with existing supply chain operations, while looking for minor incremental changes. Examples here included: reviewing credit terms and payment risks; proactive increases in pricing pass-through; use of swaps; and ongoing business operation consolidations.

From this grouping and the increased focus on the relative importance of supply chain and logistics, it is interesting to note that only one in three of the companies has supply chain and logistics represented at board level through a direct reporting line.

BE BRAVE AND CREATIVE

"We need to make certain as logistics service providers (LSPs) that our perception is aligned with that of the chemical companies. Equally, chemical companies need to give us the freedom and openness to become involved in their business"

"A number of LSPs are looking to do more and be more creative and move beyond the 'trucks and sheds' mentality. While – and if – that mentality continues to prevail, the bigger logistics companies are going to look at chemicals as a less important sector than retail or automotive for example where people are prepared to be braver"

"Everybody is battening down the hatches, but now is the time to be brave and creative"

Head of chemicals at major third-party logistics service provider

Another point to note is the increasing awareness of the need for expert/experienced supply chain management skills with a holistic point of view. The majority of companies felt they had probably underinvested in developing or hiring appropriate capabil-

GET THE BALANCE RIGHT

"The fundamental role of the supply chain does not change throughout the petrochemical cycle. The objective remains as ever to provide safe, optimized logistics to facilitate commercial activity

"That said, as business challenges increase, the balance between logistics flexibility and cost reduction, shifts. I believe that successful logistics managers will be those that get this balance right"

"The relationships held with strategic logistics service providers are vital to achieving this goal"

Mervyn Williams, supply chain manager, INEOS Olefins

» ity and viewed developing experience in this area as being fundamental to the career progression and development of future business leaders.

The sector in which responding companies operated also colored their responses. Some 43% said they are active in specialty chemicals, while 58% are active in petrochemicals and polymers. Activities in fine chemicals and pharma were also identified by 39% of respondents, with 28% in agrochemicals/fertilizers and commodity inorganics.

Those companies operating in specialty chemicals acknowledge that their supply chains are facing the dilemma between ongoing pressure on costs, on the one hand, and the need to be increasingly flexible to customer requirements on the other. Within this group, however, the majority said the increased costs of energy and logistics were forcing them fundamentally to review their position as differentiated specialty chemical providers, or to become more basic chemical or commodity providers.

EFFICIENCY DRIVE

A lot of sacred cows are being reviewed in this area – with about half of companies starting to split their businesses into differentiated and commodity groupings. Having made this distinction, different tactics are being deployed, including divestment strategies for noncore business; creating standalone commodity businesses; and changing the business offers (value proposition) and physical supply chains for the two types of the businesses.

While 64% of participants ranked the high cost of fuel as the most important issue facing supply chain and logistics departments at the moment, 42% of those polled also mentioned utilization of transport as being very important. This, too, is directly linked to the increased fuel cost issue.

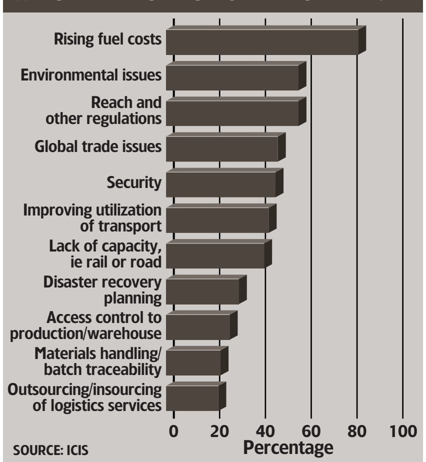
Better use of transport and logistics resources would, as a consequence, in part contribute to solving the problem of fuel costs. Examples of activities being taken in these areas include:

- ensuring fully loaded transport equipment
- reduction in part load orders
- optimization of delivery frequency to maximize full loads
- consolidation of the number of suppliers
- increased frequency of reviewing fuel surcharges to support supplier's viability
- reviewing and changing the total distribution network design to factor in increased fuel costs
- improving driver training to improve efficiency of delivery costs versus shortest delivery time.

One or two companies are exploring improved coordination with other chemical producers to jointly leverage value. Examples here included coordinated rail transport activities, joint storage and improved joint jetty facilities, joint pipeline facilities and consolidation of road transportation, including backhauling.

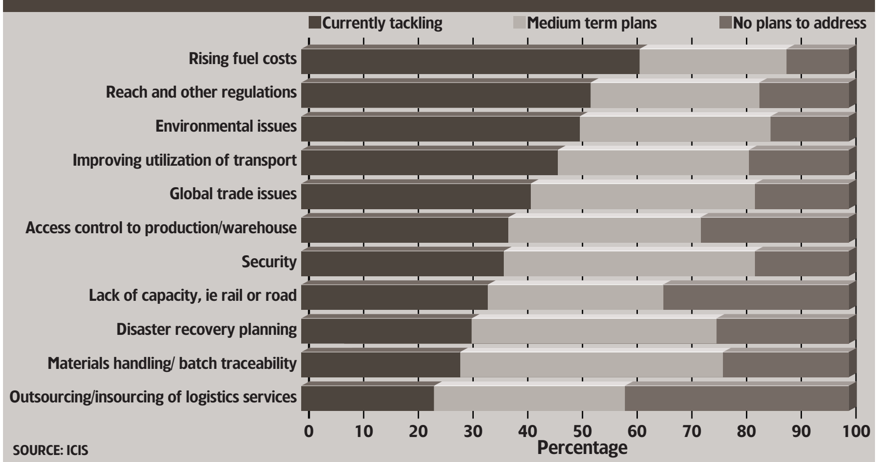
Besides fuel costs, other important issues for today's supply chain manager included environmental issues, the lack of logistics capacity, security, and global trade issues such as compliance and credit. The environment was commonly mentioned as becoming a more strategic issue for availability of licences for new facilities and also for declaring the original point of manufacture. Meanwhile, lack of capacity

WHICH ARE INCREASINGLY IMPORTANT?



SOURCE: ICIS

WHICH ISSUES ARE YOU ADRESSING?



SOURCE: ICIS

was viewed largely as not so bad as last year, when there was something of a hiatus in supply. This has been overcome by producers working closely with their logistics suppliers to reduce this risk.

The lower ranked issues faced included disaster recovery planning and regulatory issues linked to the EU's Reach chemical regulation. The lowest ranked issue, surprisingly, was outsourcing/insourcing of logistics

"What does this... mean for the importance of priorities for end-to-end supply chain management?

James Black, chemical sector head at J&M

services – and here, the field was mixed, with some companies believing they had reached the limit of outsourcing operations, others believing they could do a better job in-house and should develop it as a core competence, and others believing they could learn a lot from other industries like automotive and fast-moving consumer goods (FMCG), but feeling they were too conservative as an industry to explore these further.

In passing, it was clear that the majority of those we interviewed were unsure if the correct stimulation was being given to the industry to develop higher integrity, environmentally friendly and lower-cost solutions to logistics by moving volume from road networks to pipeline, rail, inland waterway and multimodal options.

The common belief was that significant focus and investment had now been given to establishing the rules, regulations and common standards and that the next stage would require coordinated action, investment and incentives from government, with logistics service providers and the chemical industry working closely together.

Astonishingly, only a few companies mentioned that they were addressing the subject of their "CO_2 footprint" and environmental sustainability as part of their supply chain and logistics effectiveness and efficiency actions. This could have been due to the profile of the interviewees and survey respondents – but if true, it contrasts significantly with the actions of some of their downstream customers and their supply chains (for example automotive, FMCG and electronics).

One or two companies were exploring opportunities for any first mover competitive advantage in green supply chain management – but most considered it more of a compliance issue.

Looking at the business through each other's eyes might bring opportunities for better partnering and alliances for both logistics service providers (LSPs) and chemical providers. We noticed a few interesting opposed beliefs:

"It would be great if our LSPs worked more closely with one another to bring us joined-up logistics solutions, instead of offering standard offers by themselves"

"We are looking to reduce the number of LSP relationships so we can focus on developing longer-term relationships, commitments and commercial arrangements with fewer companies."

These statements compared with: "Some of our chemical clients are still quite academically aloof, or even arrogant, and believe all we can offer are simple trucking solutions. They do not realize that we have highly educated people in our organization and could help them with wider supply chain solutions. It's nearly as if we are viewed as second-class citizens, compared to the well established chemical industry."

"Our chemical clients typically split into two camps: those that try to negotiate a short-term tough deal, forgetting this is becoming an increasingly short-margin, unattractive business; and, those who have learned from shortages last year and are taking a longer-term relationship position with us, and even starting to look for joint investment linked to longer-term commitments. It's becoming a strongly polarized environment."

WHAT OF THE FUTURE?

The subjects of rising energy and fuel costs and efficient operation have been determining the debate and increased focus on supply chain and logistics efficiency and effectiveness. The additional emerging financial market pressure, commercial credit crunch and volatility will further increase pressure on key items like cash, terms of payment, credit risk and probably lead to further partnering with trusted peer group chemical companies, suppliers and customers.

Everyone who was asked expected further industry consolidation in terms of the number of both producers and the number of viable logistics providers. Within Europe, the question of the future flow of products from more cheaply sourced raw material producers in the Middle/Far East will probably be the longer-term additional stimulus for the industry to work more collaboratively and for governments to stimulate increased collaboration and effectiveness to protect essential levels of employment.

So, did people see the glass as half full or half empty? On the whole, it is still being viewed as half full, with opportunities to improve, but the industry needs to start moving forward together decisively and quickly.

Black concludes: "If this is a true taste of things to come, then the interesting question at this time of year – with everyone in the midst of their budgeting and strategic planning cycles – is: what assumptions are they using for cost/price of oil/energy in their one-year, three-year, five-year scenarios? And what does this subsequently mean for the importance of priorities for end-to-end

Helge Koenig is head of the supply chain operations & logistics consulting division at J&M Management Consulting. He has 10 years' experience of consulting for industrial enterprises and logistics service providers and previously worked in industry for several years.

ABOUT ICIS AND J&M

The survey is part of a series of offerings from ICIS custom publishing, headed by global editor John Baker, formerly editor of *European Chemical News* and *ICIS Chemical Business*. For more details, please contact **john.baker@icis.com**

J&M, with offices across Europe and in Shanghai, China, combines management consulting with IT consulting. By optimizing business processes and supporting their performance with modern IT solutions, it enables clients to achieve strategic goals faster and with sustained success. J&M's expertise includes supply chain management and all associated business processes, including distribution, marketing, R&D, finance and control.