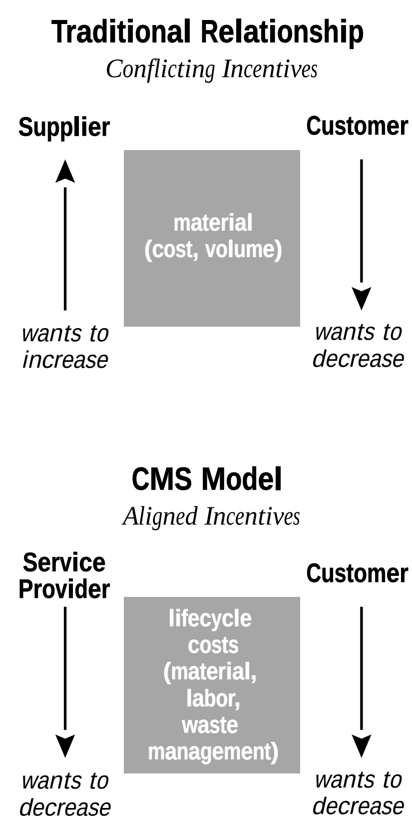
CMS INDUSTRY REPORT 2000

Executive Summary

A quiet but profoundly significant change is underway in the chemical industry. Chemical suppliers are transforming into chemical management service (CMS) providers. This shift in business strategy aligns their economic interest directly with that of their customers: the more efficiently the entire chemical lifecycle is managed, the higher the rewards for both. (See Figure 1.) The non-profit organization, Chemical Strategies Partnership (CSP), was formed in 1996 to test the economic and environmental merits of CMS as a business model. Over the past four years, CSP has been directly involved in the conception, negotiation, and documentation of several CMS agreements, and has served as an information clearinghouse between providers and customers.

This industry report provides CSP's overview of the CMS industry's structure, conduct, and performance. It is based on CSP's direct experience in the field, as well as a detailed survey in which CSP interviewed thirty CMS providers and customers.

Figure 1: Aligning Incentives



The Market

With notable exceptions, CMS market penetration remains surprisingly low. Nationally, about $112 billion dollars/year of industrial chemicals are purchased by customers (not including chemical manufacturers). CMS is used in, or soon could be introduced to, eight industrial sectors. Many of the chemical purchases are in small increments that do not warrant a sophisticated service approach. Thus, for these eight sectors alone, the potential CMS market is about $10.5 to 13 billion. This market is significantly underserved: the best assessments of current total CMS penetration range from 10% in the aerospace industry to somewhere between 50% and 80% in the automotive industry.

Providers

The CMS market is served by two distinct provider groups. Approximately 70% of the providers interviewed are considered "mature" providers. These tend to be large chemical producers, who primarily serve one of three sectors: automotive, metalworking, or semiconductor. Over the past ten years, they have followed their product into the customers' facilities with increasingly sophisticated supplier service models. These CMS providers reduce chemical costs chiefly by supplying large volumes of chemicals with unmatched reliability and efficiency, and by joining forces with their customers to improve the chemical applications process. Mature providers, typically focusing on only one or two industries, have found acquisitions and alliances to be a source of growth. In some cases, producers of liquid chemicals and gases have joined forces to strengthen their product portfolio.

Customers reported a net savings of 5 to 25% a year. The great majority of these savings are due to reductions in the overall chemical lifecycle costs.

"Emerging" CMS providers do not produce chemicals themselves. Instead, they rely on sophisticated service models to target customers with more diversified and specialized chemical purchase profiles. Typically, this includes customers in the aerospace, airline, and electronics industries (excluding semiconductor). These providers focus on reducing overall chemical use costs by providing superior service along the entire chemical lifecycle – from procurement through disposal.

The decision by a CMS provider to enter the market is fundamentally driven by selling product with the service or a pure service orientation. Who will win in the long run?

Execution

We believe that this distinction between CMS providers will have less meaning in the future. In the long run, superior execution skills will be the critical factor differentiating industry leaders. Here's why: today, most customers still have their eyes on the total chemical purchase price and choose CMS providers accordingly. However, customers will increasingly look for a more comprehensive service model. In fact, our survey shows that contract expansions are principally driven by the provider's ability to manage down long-term chemical lifecycle costs. Most importantly, the results are starting to speak for themselves: net savings of 5 to 25% per year are reported by virtually all customers, the great majority of which are due to reductions in the overall chemical lifecycle costs. (Leveraged purchasing – pooling the purchasing power of several customers or divisions – does not yield consistent results over time.)

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Customers are delighted – the great majority plan to expand the scope of their CMS contract. They are enjoying not only significant cost savings, but also significant environmental benefits from reduced chemical volume, reduced emissions, reduced risk, and better data for reporting. This news will spread. As providers and customers become more sophisticated, information technology will be a major factor in helping to erode the differences among product and service specialists.

Execution skills are critical because CMS is complex. Many of the CMS contracts cover the entire chemical lifecycle as well as most of the customer's chemical "footprint", and involve significant investments in on-site staff. Contracts average three years in length and are rather sophisticated, typically including two or three compensation mechanisms – most often a combination of chemical purchase cost pass-through, management fees, and shared cost savings.

In 1999, CMS providers reported profit margins ranging from 5 to 30%.

There is considerable room for improvement in the execution arena, both for providers and customers. Customers' understanding of their total chemical management costs is usually incomplete, outsourcing is viewed skeptically by in-house staff, and nothing close to a standard definition of CMS exists. The result: expensive, inefficient bidding processes characterized by mid-stream specification stages, perpetually unrewarded contracts, and providers spending up to $1 million to bid for a contract. All of these factors hurt providers. Providers, by the same token, can improve on their execution. They generally have not availed themselves to advanced net-based technologies, especially chemical brokerage opportunities that could help lower transaction costs. There is very little "coopetition" among providers – alliances are just now being formed to develop industry standards, educate markets, and represent the industry. These factors hurt customers. A bit of standardization in the bidding process and better public information about CMS would expedite industry growth.

Results

Despite these shortcomings, financial industry performance appears strong and significantly outperforms the (admittedly ailing) chemical industry as a whole. In 1999, CMS providers reported profit margins ranging from 5 to 30%. Interestingly, about half of these profits were derived from service rather than from chemical sales – further evidence that customers are recognizing the value potential of CMS. The outlook is bullish: about 50% of providers expect 2000 revenue growth between 10 and 20%, the other half expects 20 to 30%. All providers expect growth in profit margins for 2000 in the range of 10 to 40%. All providers have a presence internationally and reported increasing demand for CMS abroad.

A full 90% of providers expect to invest in information management capabilities, while 80% will invest in staff and additional technologies.

While there appears to be no difference in the quantitative outlook for mature vs. emerging providers, the former count on near-term growth within their industry of specialization, while the latter clearly are looking towards developing CMS concepts for new industries. For everyone involved, the expansion of existing contracts is a far cheaper and less painful growth option than enduring the RFP "root canal" (actual quote). The execution imperative has not gone unnoticed: a full 90% of providers expect to invest in information management capabilities, while 80% will invest in staff and additional technologies.

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Outlook

The CMS industry appears poised for considerable growth: key markets are underdeveloped, major investments are being made, delivery capacity and quality is growing steadily, and margins are healthy and growing. Key conditions for continued growth include the following:

- Developing an industry-wide capability to educate customers, track and publish financial and environmental results, and propagate standardized bidding procedures. The CMS Forum, a project of CSP, has been founded by several CMS providers to pursue these objectives and will be most successful if supported by a majority of CMS providers.
- Building world-class supply management information systems specifically adapted to the CMS context.
- Expanding into new industries. This will require service approaches that make it practical to introduce CMS concepts to smaller chemical users.
- Avoiding "price myopia." An all too common statement among providers is: "it's all about chemical purchase price, anyway." Practice and results do not bear this out – customers routinely use highly sophisticated supplier management models in other areas of the enterprise, and they very much value superior service as long as it has demonstrable effect on their overall chemical management costs.

Participants in the Survey

Customers	CMS providers
DaimlerChrysler AG	Air Liquide America Corporation
Delta Air Lines, Inc.	Air Products and Chemicals, Inc.
Ford Motor Company	Arch Chemicals, Inc.
GE Transportation Systems	Ashland, Inc.
General Dynamics Corporation	Nalco Chemical Company/Calgon Carbon Corporation
General Motors of Canada	Castrol Industrial North America
Honeywell International, Inc.	Ecolink, Inc.
Motorola, Inc.	Fluid Recycling Services
Navistar International, Inc.	GW International
Nortel Networks Corporation	Haas Corporation
Northwest Airlines Corporation	Interface LLC
Raytheon Company	Milacron, Inc.
Texas Instruments, Inc.	PPG Industries, Inc.
Toppan Electronics, Inc.	Quaker Chemical Company, Inc.
United Technologies Corporation	Radian International LLC