Setting a New Agenda for the Chemicals Industry

The seventh Chemical Customer Connectivity Index (C3X) examines how chemicals companies can outperform their peers in a volatile market.
The volatile markets of the past several years have made it hard for chemicals companies to find clear strategic direction. Most have moved to maintain results by aligning strategies, increasing portfolio effectiveness, and improving operational fitness, yet there has been a noticeable lack of new impulses—new innovations, themes, or even molecules that could give the chemicals industry a fast boost. As a result, earnings have decreased unexpectedly for many players in the industry, while others have gained only because of lateral development in their segments.

The seventh edition of the Chemical Customer Connectivity Index (C3X) assesses the chemicals industry from the vantage point of executives from both chemical companies and their direct customers. It zooms in on the top management views of these industry developments to determine the strategies that will bring excellence in chemicals (see sidebar: About the Study on page 3).

There is no silver bullet for future success, but the latest C3X identifies a number of game-changing actions that, addressed properly, can enable chemical companies to outperform their peers in a volatile market.

Sustaining Profitability in a Volatile Market

Most chemical manufacturers have continued on the growth path over the past year, largely because they have been able to pass on raw material cost increases to their customers. Sixty percent of C3X respondents say they experienced revenue growth of up to 10 percent over the past year. However, one in four manufacturers saw their revenues decline in the past year, a larger share than in 2012.

Expectations going forward are brighter, in line with the macroeconomic outlooks for North America, China, and select European countries from the World Bank and Organisation for Economic Co-operation and Development (OECD). Despite raw material cost increases, 75 percent of executives from chemical manufacturers expect growth of up to 10 percent, with the remainder expecting 10 percent or more. Respondents from chemical customers generally support this positive outlook, although one in five expect a growth decline (see figure 1).

Figure 1

Most respondents expect moderate growth in the coming year

What demand growth do you expect for the next year?

<table>
<thead>
<tr>
<th>Growth</th>
<th>Customers</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>−30% or lower</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>−30% to −20%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>−20% to −10%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>−10% to 0%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>0% to +10%</td>
<td>54%</td>
<td>74%</td>
</tr>
<tr>
<td>+10% to +20%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>+20% to +30%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>+30% or more</td>
<td>8%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Sources: The 2013 Chemical Customer Connectivity Index (C3X); A.T. Kearney analysis
All respondents seem to be aware of the market’s inherent volatility. Intensified efforts to become lean and increase operational efficiency have been balanced by moves to increase business system flexibility and strengthen core capabilities. However, a deep analysis of the data shows that few chemical players are employing powerful, standardized crisis management tools in their management systems to secure profitability and liquidity during major fluctuations. Additionally, the industry’s leaders are understanding that internal coordination and a solid understanding of what customers want can lead to the greatest benefits of increased collaboration.

Among European respondents, the survey results reflect the continent’s divided economic situation. Three-quarters of German respondents say the impact of Europe’s financial situation has been low or moderate; on the other hand, more than half of European respondents outside of Germany say the impact has been high or very high (see figure 2).

**Figure 2**

*The impact of economic instability is lower for German manufacturers than for manufacturers in the rest of Europe*

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**About the Study**

The Chemical Customer Connectivity Index (C3X) analyzes the chemical industry from the vantage points of chemical companies and their customer companies. It is based on a survey of senior executives from leading chemical companies and decision makers in customer industries who work at the interface to their suppliers. The study is conducted by A.T. Kearney in conjunction with CHEManager Europe and the Westfälische Wilhelms-Universität Münster’s Institute of Business Administration at the Department of Chemistry and Pharmacy.

The first C3X was launched in 2008, and subsequent studies have been released every six to 12 months. Participants in this seventh C3X survey, which was conducted in June and July 2013, included roughly 150 executives from 10 European countries, the United States, India, South Korea, and China, representing chemicals firms and client companies. The customer industries cover a variety of different sectors, ranging from automotive and food to cosmetics.

Sources: The 2013 Chemical Customer Connectivity Index (C3X); A.T. Kearney analysis
Benefiting as Raw Material Prices Drop

Since our last survey, raw material availability and prices have leveled out. Only 10 percent of respondents say they saw increased raw material prices over the past year, which surpassed the expectations of respondents in last year’s C3X. Twenty-eight percent of respondents say they saw a moderate decline in raw material prices.

A year ago, access to alternative raw materials rated first as means for how chemical manufacturers can help their customers become more sustainable; this year, it ranked third, thanks to flat-to-declining U.S. crude oil prices and the rise of shale gas, which has brought down the prices for gas-based derivatives. Now, manufacturers are focusing less on supply availability and alternative raw materials.

For decades now, the chemical industry has lacked real game-changing innovations that drive growth.

Today, with market liquidity for most basic molecules on the rise, cost-competitiveness has become the most crucial attribute in securing raw materials, so excellence in supply management remains a major differentiator going forward. With spending on direct material supplies often reaching 50 to 60 percent of total costs, manufacturers need leading-edge capabilities to manage it.

This focus on supply management is expected to spread along the supply chain. Manufacturers are addressing this by increasing their focus on suppliers (to realize common value improvements) and on customers (for example, collaborative innovation).

Emphasizing Innovation as Markets Commoditize

Before the economic crisis and credit crunch hit in 2008-09, most manufacturers saw the need for continued innovation and placed significant bets on mid- to long-term developments. Even during the crisis, manufacturers reported that they wanted to continue investing in innovation. In the past year, however, the share of revenues chemical companies spent on innovation was stable but low; only 30 percent of manufacturers spend more than 5 percent of their sales on innovation. For chemical customers, innovation spending decreased; the share of respondents that say their companies spend 2 percent or less on innovation doubled in size to 40 percent.

Despite the best intentions, for decades now the chemical industry has lacked real game-changing innovations that drive additional growth. For some segments of the industry, the focus has shifted more toward engineering and technology investments that can further improve asset efficiency and scale—rather than create game-changing growth. Maintaining market share and competitive positioning with incremental innovation is crucial for long-term success.

Over the past year, manufacturers have placed the greatest innovation priority on new product features (80 percent) and striving to be perceived as “innovation leaders” (75 percent). These have been rated as the top two priorities among chemical company
respondents since the first C3X, although the order switched in this survey. Customers rate the perception of a chemical supplier as an innovation leader (81 percent of respondents) as the most important innovation-related attribute, yet they rate new product features much lower (58 percent). Second most important to customer respondents is new chemical products (73 percent)—which only 38 percent of manufacturers cite as important. New applications (71 percent) rates third among customers. Despite these gaps, customers and manufacturers appear to agree that new applications and product features are more relevant than innovative business or service models.

Roughly half of respondents from chemical companies say that increased collaboration with their customers has changed their R&D approach toward open innovation. And the survey leaves no doubt that intensified collaboration in innovation is paying off already. One-third of manufacturers have achieved price premiums thanks to collaboration on innovation with customers (see figure 3).

However, there is some disconnect. While customer respondents say their companies are open to sharing information on their customers’ needs, chemical company respondents appear to disagree. Twenty-seven percent of customer respondents say they are “very open” to sharing insights on their own customers’ needs with suppliers in order to get their help in addressing end-user needs; no customer respondents say their companies are “generally not open” to sharing. Yet only 9 percent of suppliers say their primary customers are “very open” to sharing insights on their customers, and 36 percent consider their customers to be “generally not open” to collaboration.

Figure 3
Collaboration is changing innovation

How has open innovation affected collaboration for your business?

Sources: The 2013 Chemical Customer Connectivity Index (C3X); A.T. Kearney analysis
Generating Value through Collaboration

Survey respondents confirm that they expect future value to be generated at the interfaces of both suppliers and customers. Pricing excellence (77 percent), faster innovation time-to-profit (65 percent) and process excellence (62 percent) rate as the most important improvement areas (see figure 4).

Nearly 90 percent of customer respondents say that their company meets regularly with the chemical companies they buy from. Two years ago, only two-thirds of participants did this, a good sign that manufacturers are in touch with their customers. On the other hand, the share of manufacturers that meet with their customers’ customers remains unchanged at 45 percent.

Chemicals companies and their customers are becoming more accustomed to collaborating.

This year’s C3X shows that chemical companies and their customers are becoming more accustomed to collaborating in a more professional and targeted way. In Europe’s €650 billion chemical industry alone, manufacturers expect almost €30 billion in top line and cost benefits from intensified collaboration.

Manufacturers still overestimate how much customers value generating market intelligence for “internal use” and sales force efficiency measures. But customers do report that they benefit from manufacturers’ steps that drive collaboration more intensively (from 74 to 84 percent).

Figure 4
What is the difference in how manufacturers view their customers’ needs?

<table>
<thead>
<tr>
<th>Customer and market intelligence</th>
<th>Manufacturers overestimate importance</th>
<th>32%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailored service offering</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>Sales force efficiency</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Value-added services</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>New business models</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>New markets and customer</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Complexity management and reduction</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Accelerated innovation process</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Process excellence</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>IT interface</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Pricing excellence</td>
<td>-14%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Respondents rank answers on a scale from one (not important) to five (very important). Percentages represent the difference between the share of customers and manufacturers that selected four or five.

Sources: The Chemical Customer Connectivity Index (C3X); A.T. Kearney analysis
Customer respondents confirm that this collaboration has increased greatly, and 85 percent believe they will be collaborating more over the next five years (see figure 5).

There is also a gap in the importance of customized services. Nearly two-thirds of manufacturing respondents say they believe this is important to their customers, but only 42 percent of customers cite it as important. One reason for the disconnect is a lack of open communication that could help define the appropriate level of customization and tailoring. This issue poses new questions about the role of the sales force in traditional sectors, the elimination of obsolete activities, increased integration of sales and technical service, and the extension of customization further down the value chain.

Even though there is agreement on the importance of collaboration, there remain obstacles to implementation.

In the opposite direction there is a discrepancy in the importance of pricing, where customers clearly want to get the most bang for their buck.

Even though there is agreement on the importance of collaboration, there remain obstacles to implementation. A lack of the “right” people and capabilities (48 percent) was the most commonly cited issue, although the issue improved among manufacturing respondents. Second is a lack of trust in external parties (46 percent). Other collaboration challenges include ineffective management processes and limited executive sponsorship (23 percent), ineffective governance (21 percent), undefined strategies (15 percent), a lack of incentives (13 percent) and an inability to measure progress (10 percent).

Figure 5
**The degree of collaboration in the value chain**

What is the degree of collaboration in the value chain?

<table>
<thead>
<tr>
<th></th>
<th>Customers</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With suppliers</td>
<td>With suppliers</td>
</tr>
<tr>
<td>Today</td>
<td>69%</td>
<td>37%</td>
</tr>
<tr>
<td>In five years</td>
<td>85%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>With customers</td>
<td>With customers</td>
</tr>
<tr>
<td>Today</td>
<td>58%</td>
<td>83%</td>
</tr>
<tr>
<td>In five years</td>
<td>77%</td>
<td>95%</td>
</tr>
<tr>
<td></td>
<td>With academia</td>
<td>With academia</td>
</tr>
<tr>
<td>Today</td>
<td>12%</td>
<td>24%</td>
</tr>
<tr>
<td>In five years</td>
<td>23%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Note: Percentages represent the number of respondents answering high or very high.
Sources: The Chemical Customer Connectivity Index (C3X); A.T. Kearney analysis
Demystifying Sustainability

In sustainability-related issues, this year’s survey has the lowest scores in a few years, among both chemical companies and their customers (see figure 6). The only increase is waste disposal among customer respondents—50 percent regard it as a priority (while only 26 percent of manufacturing respondents believe it is a priority for their customers).

Is sustainability really fading in importance in the chemicals industry? **It is likely that sustainability becomes optional when finances are tight.**

These results beg the question: Is sustainability really fading in importance in the chemicals industry? The study shows that manufacturers in Germany consider sustainability somewhat more important than their counterparts in other countries—places where the economic situation in these countries is more problematic. So it is likely that sustainability becomes optional when finances are tight.

Additionally, sustainability issues such as waste disposal and reusability rate more highly outside of Europe. Considering that sustainability has gotten a lot of attention in Europe in past years, the results may indicate a certain level of satisfaction in Europe as non-European countries move forward with more actions.

**Figure 6**

**What is required from the chemicals industry to strengthen sustainability?**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Customers</th>
<th>Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Securing sustainability in supply chain</td>
<td>58%</td>
<td>55%</td>
</tr>
<tr>
<td>Technical service to improve operational sustainability</td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>Provision of alternative (renewable) raw materials</td>
<td>50%</td>
<td>43%</td>
</tr>
<tr>
<td>Disposal of waste</td>
<td>50%</td>
<td>26%</td>
</tr>
<tr>
<td>Possibility of product return and reuse</td>
<td>42%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Note: Percentages represent the number of respondents answering high or very high.

Source: The Chemical Customer Connectivity Index (C3X), A.T. Kearney analysis
Reducing Portfolio Complexity through Distributors

Complexity management has been a major focus for many manufacturers for many years. As they streamline portfolios, distributors’ role has grown more important globally, and survey respondents cite distributors and resellers as one of the most important collaboration partners going forward.

Distributors are instrumental for allowing chemical manufacturers to focus on their own activities within key accounts, markets, and regions. Increasingly, distributors are being deployed to add value in areas such as formulation, logistics, speed to customer, back-office activities, and even complementary products. At the same time, expectations regarding distributor performance and capabilities have increased in line with the need to collaborate better along the value chain. Distributors and chemical manufacturers seem to agree on this: Distributors and resellers are readjusting their positions to serve more as partners, and manufacturers recognize the movement toward and benefits of engaging with distributors on an equal footing.

Survey respondents also highlighted several other potential partners in major customer groups served by manufacturers: plastics and rubber (14 percent), automotive and automotive parts (13 percent), construction, building, and materials (11 percent), and consumer goods (7 percent).

Placing the Right Regional Bets for Growth

New energy sources—particularly the rise of shale gas in the United States—have had little impact thus far on investment decisions, including those related to regional business decisions. Nearly one-third of all respondents say that these new sources have had no impact at all. These energy sources have also had little impact on supply-and-demand balances, as nearly half of manufacturing respondents and three-quarters of customer respondents see no or minimal changes.

On the other hand, China remains the primary regional focus for growth, with survey participants saying their companies will invest in increasing manufacturing capacity in China over the next three years. Seventy percent of manufacturing respondents and 46 percent of customer respondents rank China as the focus region.

For manufacturers, Western Europe (50 percent) and North America (43 percent) follow as the next most important regions. Compared to recent results, North America has increased as a potential location for near-term investment; in the 2011 C3X, only 8 percent of manufacturers saw North America as a target for investment at all. Customers, on the other hand, rate India (42 percent) and South America (27 percent) as their second- and third-most important regions for growth (see figure 7 on page 10).
Forging a New Path in Chemicals

Despite a wealth of opportunities, the last few years for the chemicals industry has been characterized by moves to shore up internal processes—and, for some, a stagnation in growth. But even in a volatile environment, there is plenty the chemicals industry can do to create short-term growth and build a long-term competitive advantage.
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