

FEBRUARY 2017



© EMiddelkoop/Getty Images

C H E M I C A L S

Demystifying digital marketing and sales in the chemical industry

Digital can give chemical companies the power to unlock more than \$200 billion of new value by reducing cost to serve, improving pricing, and for fast movers, capturing growth from competitors.

Søren Jakobsen, Kedar Naik, Nikolaus Raberger, and Georg Winkler

Over the past decade, the chemical industry has enjoyed remarkable success, delivering more shareholder value than its upstream suppliers, downstream customers—and, indeed, the global equity market as a whole (Exhibit 1).

But experience shows there is no room for complacency. Almost 50 percent of chemical companies in the top quintile from 2000 to 2004 no longer were from 2010 to 2014.¹ Today's chemical companies can't expect to keep delivering above-market returns by continuing on the same path. That's because that path has been forged, to a large extent, by advances in productivity. Many

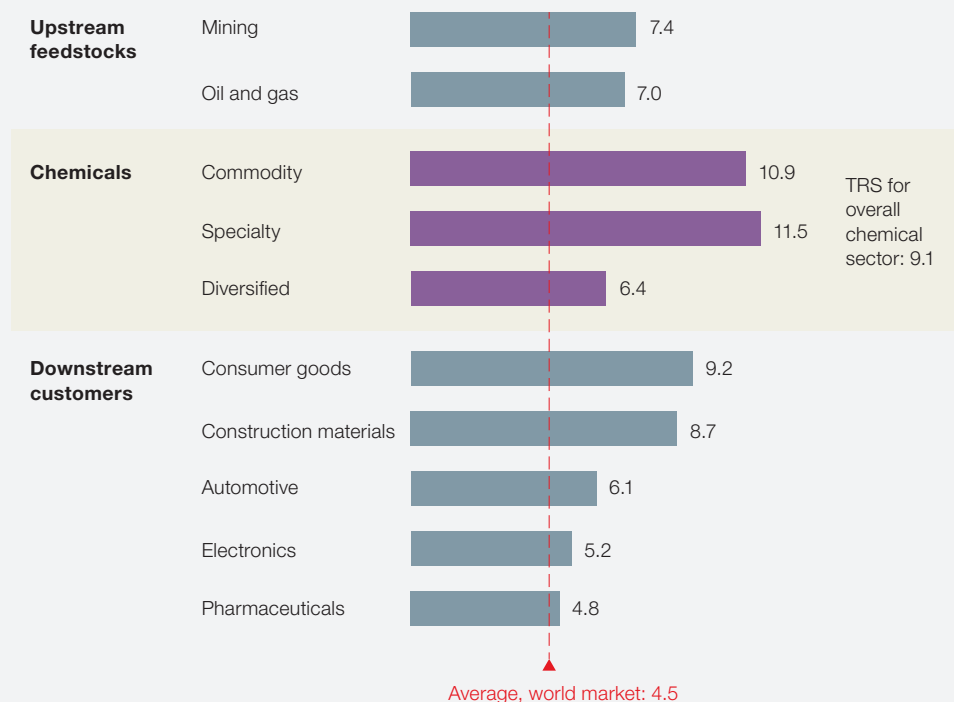
traditional productivity levers, however, have now been exhausted. Where can companies look for their next step change in financial performance?

We believe that digital can give them the power to tap into new value pools and capture growth from competitors. Applying readily available digital approaches to marketing and sales to reduce costs to serve and improve pricing could be worth as much as \$105 billion to \$205 billion annually in additional earnings before interest, taxes, depreciation, and amortization (EBITDA) to the \$3.8-trillion-a-year chemical industry. In addition, fast-mover companies that act aggressively to deploy digital

Exhibit 1

The chemical sector is one of the strongest performers in its value chain.

Total returns to shareholders (TRS) compound annual growth rate, Dec 2000–Mar 2016, %



Source: Datastream; analysis of data provided by Corporate Performance Analytics by McKinsey

tools could also capture \$45 billion to \$65 billion of additional earnings by taking customers and revenues away from less nimble peers (Exhibit 2).

We estimate that the additional EBITDA chemical companies would generate could also increase returns on sales performance. Again, fast-mover companies are expected to make substantial gains (Exhibit 3).

Other B2B industries are showing the way—introducing digital tools, technologies, and approaches that are equally applicable in the context of chemicals. And leading chemical companies are already looking to digital solutions

to help them tackle challenges and explore new business opportunities.

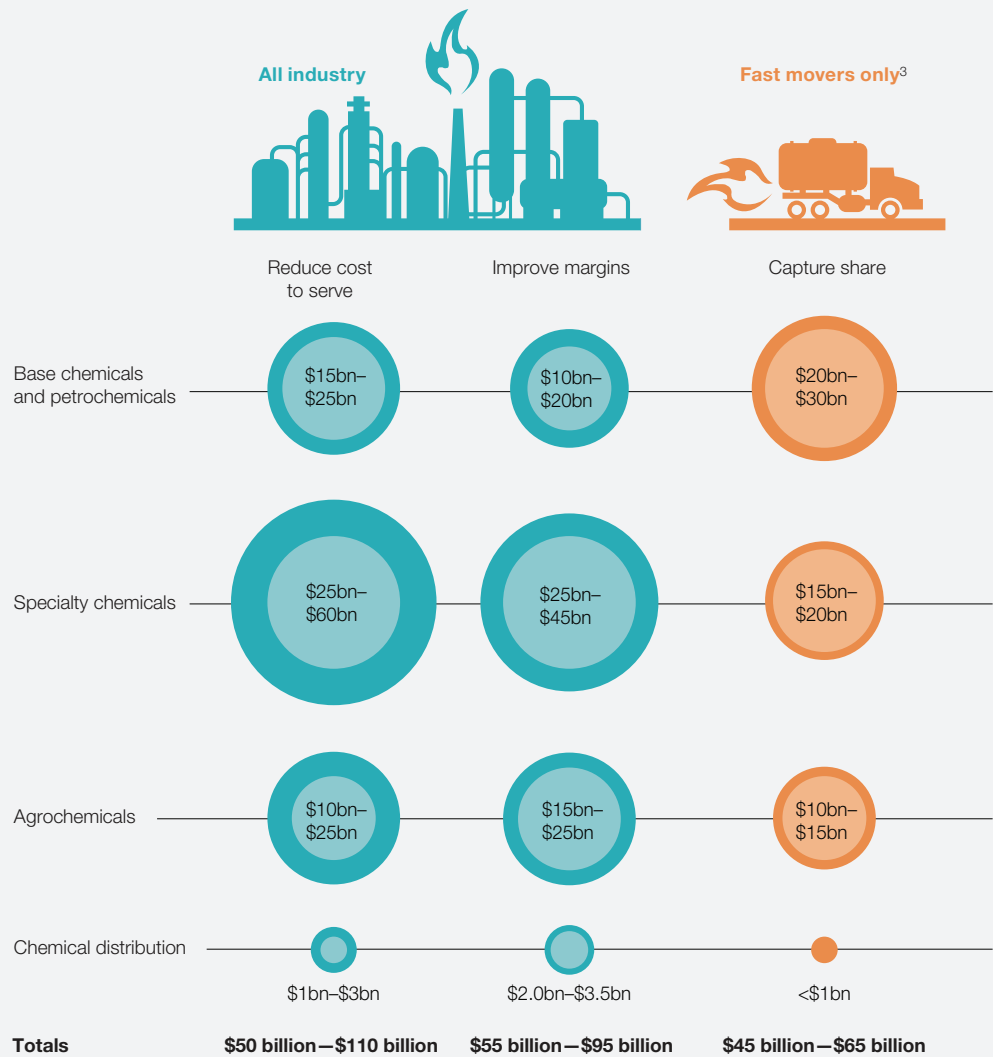
What will digital mean for chemicals?

Let's be clear: the chemical industry isn't about to have its whole business model turned upside down by new digital players. With heavy assets requiring huge investments, no private production capacity to tap, and comprehensive regulations that govern manufacturing and distribution, the barriers to entry are just too high to allow wholesale displacement by digital attackers. Yet there is money to be made, and companies that neglect the digital opportunity risk being outmaneuvered by more agile competitors. Introducing and expanding digital

Exhibit 2 Digitizing commercial operations could be worth more than \$200 billion in additional earnings.

Opportunity from applying digital levers, 2020¹

Additional EBITDA² by segment, \$ billion



¹Excludes disruptive industry changes (eg, increased chemical sales from 3-D printing) and assumes constant revenue base and industry growth; figures may not sum, because of rounding.

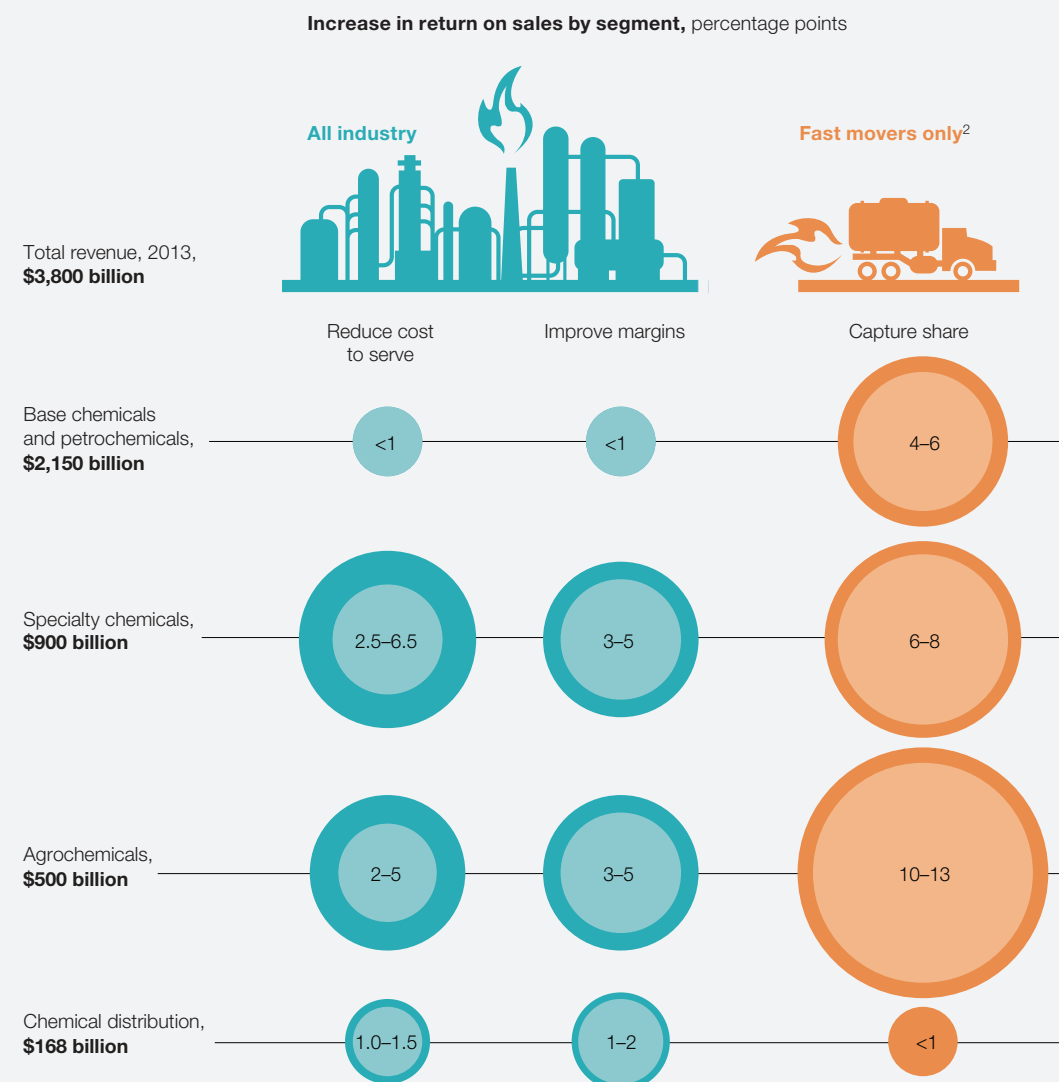
²Earnings before interest, taxes, depreciation, and amortization.

³Industry winners expected to outperform historical 10-year real industry growth by factor of x1.5–2.0 over the next 5 years; return on sales calculated for sample (25%) of industry sales.

Exhibit 3

Digitizing commercial operations could also provide a substantial boost in return-on-sales performance.

Opportunity from applying digital levers, 2020¹



¹Excludes disruptive industry changes (eg, increased chemical sales from 3-D printing) and assumes constant revenue base and industry growth; figures may not sum, because of rounding.

²Industry winners expected to outperform historical 10-year real industry growth by factor of x1.5–2.0 over the next 5 years; return on sales calculated for sample (25%) of industry sales.

sales channels, applying advanced analytics and machine-learning tools, increasing automation, and digitizing end-to-end processes in commercial operations will help chemical companies tap all aspects of digital to increase growth and profitability.

To do so, however, companies must understand what a digital transformation involves. Technology is critical in building a digital commercial backbone, but a digital transformation is a business priority, not an IT project, and has to be managed as one. Such a transformation involves adopting new skills, mind-sets, tools, and processes and learning how to apply them in every part of the business.² Leaders must also move quickly. As Klaus Schwab, executive chairman of the World Economic Forum, put it: “In the new world, it is not the big fish which eats the small fish, it’s the fast fish which eats the slow fish.”

So what are the sources of digital commercial value in chemicals? We see four distinct areas:

New growth

New organic growth begins when companies consider how digitization could affect every part of the value chain, from raw materials to end consumers. To understand the potential, the best companies set up cross-functional teams with members from marketing and sales, R&D, and product development, as well as downstream-market experts. This cross-section of talent is needed to identify promising opportunities across the business, to work out how to capture them, and to translate the findings into either new products or services or new value propositions for existing ones.

Capturing any opportunity, however, requires an intimate understanding of the needs of end users, so the best teams interview and observe them to understand what they do with a product or technology and what refinements and innovations they would like to see. For instance,

new opportunities created by digital advances, such as 3-D printing, have prompted materials companies to introduce innovative products. Examples include new classes of polymers with the structural stability to replace metal plates and prosthetics in bone surgery, on the one hand, and colored polylactic acid to meet customers’ aesthetic demands, on the other.

Disrupting an existing offer often brings a risk of cannibalization, so leaders must assess shifts in value pools carefully before making their moves.

Better access to customers

Multichannel businesses consistently outperform their single-channel peers. Yet so far, few chemical companies have embraced online sales channels; most still serve customers mainly through their direct sales forces and distribution partners. Our latest research on B2B customer decision journeys shows that customers of chemicals, energy, and other materials industries continue to see personal interaction as critical for some purposes, such as identifying suppliers or researching new products. Eighty percent of the buyers find it helpful to speak to someone in person when they get a completely new product or service. However, the number drastically changes on other occasions; only 15 percent of buyers find this helpful when they order exactly the same product or service they got the last time. As the market’s digital maturity increases, digital approaches are increasingly needed to complement personal interaction.

A case in point is BASF, which wanted to expand its footprint in China by addressing its attractive small and medium-size enterprises (SMEs), which account for 99 percent of the country’s companies and 60 percent of GDP. This segment is challenging to serve profitably because of the customers’ relatively small scale and diverse needs. So in 2015, BASF decided to open an e-store on Alibaba and secured access to the large number of Chinese

SMEs that already use the Alibaba platform; this also helped it to serve customers with minimum complexity, to keep its selling costs low, and to manage its portfolio easily.

Chemical companies can also learn from industries that have reached a similar level of digital maturity. In steel, for instance, the Chinese manufacturer Baosteel launched an e-commerce channel for its basic products as early as 2000. Over time, it complemented this offering by adding services such as logistics and financing to its digital portfolio. After overhauling its online business model in 2013, Baosteel relaunched its online store two years later and merged it with other online platforms. Baosteel now hosts the trading of its competitors' steel offerings as well as its own.

This step clearly met a market need: the channel grew more than threefold between 2013 and 2015, with 60 percent of sales coming from other companies' products. In addition, Baosteel generated valuable pricing and market insights from the data it collected and processed through its enormous data-analytics engine. The company is now generating revenues of approximately \$800 million a year from its online activities.

Data-driven decision making

Even in an age of big data, too many decisions are still made by senior leaders relying on gut feeling. Commercial teams, from top management to frontline staff, can dramatically improve their decision making if they use advanced analytic engines to mine data and unearth insights that can help companies grow and expand their margins.

Seeking to improve the productivity of the sales force, one leading chemical distributor used a machine-learning application to identify how collaborating with product experts affected sales. By gathering and mining gigabytes of metadata from phone records, calendar entries, email traffic,

and the like, it discovered that its top-quartile product experts increased sales by 6 percent, whereas its bottom-quartile experts had zero impact. Digging deeper, the company found that its high-impact product experts had networks of salespeople three or four times bigger than those of their other product experts and took part in four times as many monthly calls and 12 times as many meetings. Armed with this information, it developed precisely targeted initiatives to improve connectivity and expand sales growth.

One specialty-chemical company abandoned its annual inflation-based across-the-board price increases and instead applied dynamic peer-based pricing to every possible combination of products and customers to improve margins. It adjusted up to 150,000 product and customer price points in each country, taking into account as many as eight different price drivers for all customers, as well as their distinct risk profiles. The results were dramatic: realized price increases rose from 1 percent to 3 to 5 percent. The biggest challenge was not calculating the new price points; state-of-the-art advanced analytic engines took care of that in a few days. What took time was ensuring that everybody, from top management to frontline salespeople, bought into the new approach, understood what to do, trusted the findings, and acted on them.³

A superior customer experience

Consumer companies like Amazon are leading the way in the customer-experience field with their constant efforts to make interactions more convenient and delightful. The same approach can give chemical companies a real competitive edge, particularly by standing out from their low-cost rivals.

Digital presents companies with the means to delight customers by smoothing and simplifying their customer journeys at every step, from providing instant quotes via dynamic deal scoring

at the supplier-selection stage to monitoring equipment remotely and offering preventive-maintenance recommendations at the service stage.⁴ By using digital technology, chemical companies can move from optimizing customer touchpoints to redesigning entire customer journeys to reduce churn, increase win rates, and cut the cost to serve.

One of the world's largest logistics companies researched sales and service issues with its customers to identify the top 20 pain points, which included poor sales-response times, limited real-time tracking data, and insufficient access to customer service. It then redesigned and automated error-prone manual processes to address 16 of the 20, while also bringing together critical information in an easy-to-use digital interface that helped customer-facing personnel to enable seamless customer journeys. Customer satisfaction soared. Selling, general, and administrative costs are expected to fall by 20 to 30 percent initially and by as much as 60 percent once digitization is complete.

How to prioritize

To choose where to focus digital efforts, companies can look at the scale of each opportunity and consider how it applies to their business:

- Cost to serve can fall by 15 to 50 percent through e-commerce, the digitization of processes, and the use of big data to allocate salespeople. By capturing this immediate benefit, a typical company could save enough money to finance the rest of its digital transformation—and create enough buy-in and excitement to keep up the momentum. This opportunity is largest in specialty and crop-protection chemicals but still attractive in basic chemicals, petrochemicals, and distribution.
- Companies can, on average, raise their margins by two to three percentage points of return on sales by shifting from traditional pricing and

margin management to digitally enhanced methods. Most of the value comes from introducing a dynamic-pricing engine that factors in data from plant utilization, storage levels, real-time customer demand, and so on.

- Fast-mover companies that want to position themselves to use digital tools and capabilities to capture business from their less nimble rivals can raise the growth of their revenues by up to twice the market average. The most important initiatives are likely to include creating a best-in-class online sales channel; using advanced analytics to reduce customer churn, identify new customer leads, and support upselling; and developing customer journeys that attract new business, foster loyalty, and boost share of wallet. Using digital to make sales processes more efficient and the experience of customers more engaging can enhance their satisfaction by as much as 20 to 30 percent.

Taking the first steps in the digital marketing and sales journey

We see four steps business and commercial leaders should take to start extracting value from digital:

- **Discover.** Begin by identifying and quantifying tangible commercial opportunities for your company. Prioritize the top three to five by the value they offer, the market's digital maturity (or expected receptiveness), and the digital savvy of your business. Start your transformation by galvanizing the team around these—and only these—priorities. Set clear monetary targets and follow up on implementation and capturing value.
- **Design.** Successful transformations have dedicated leaders from the business side who work closely with IT experts on multiple rounds of rapid prototyping. Great teams include facilitators who help the company address its culture and ways of working by supporting the organization as it shifts to a dynamic work environment where people are

comfortable with constant experimentation, fast adaptation, and learning from failure as much as from success.

At the same time, companies need an agile, fast technology platform. Ensure that both your traditional IT projects and your digital marketing and sales transformation get proper IT support. Success in such transformations depends on agility, rapid adaptation, and piloting—not hallmarks of IT departments geared to routine B2B commercial operations. Companies can build an agile digital IT support cell on top of the existing IT infrastructure to help meet both legacy and new requirements without disrupting the business.

- **Deliver.** If solutions require large investments or long development times, outsource noncore activities and partner up with the pros. This is even more important in digital, where things move fast. Ask who is the natural owner of the technology you need and how you can secure access by partnering up. A successful partnership brings advantages to both partners and ensures the rapid delivery of projects. When implementing a program, first run a test on a small part of your customer and product portfolio before going full scale. Start with the minimum viable product and then expand its functionality. Work with customers from the kickoff to adapt products and services to their needs and build the market's digital maturity.
- **De-risk.** Maintain the highest standards in data hygiene—your digital platform is now part of your

competitive advantage. Limit implementation risk by following a step-by-step digitization road map, one opportunity at a time. Avoid the temptation to jump into a “big bang” transformation on day one.



Digital is already changing the way chemical companies operate. How much value individual businesses will extract from digitizing marketing and sales—and how quickly—will depend largely on what their leaders do next. ■

¹ See Bing Cao, Obi Ezekoye, and Michael Glaschke, “Chemicals and capital markets: Still a strong performer,” *McKinsey on Chemicals*, July 2016.

² For more on this, see Driek Desmet, Ewan Duncan, Jay Scanlan, and Marc Singer, “Six building blocks for creating a high-performing digital enterprise,” McKinsey & Company, September 2015, and Markus Hammer, Malte Hippe, Christoph Schmitz, Richard Sellschop, and Ken Somers, “The dirty little secret about digitally transforming operations,” *Harvard Business Review*, May 2016, hbr.org.

³ For more on advanced pricing approaches, see *The Hidden Power of Pricing*, McKinsey on Marketing & Sales, New York: McKinsey & Company, 2014.

⁴ See Nicolas Maechler, Kevin Neher, and Robert Park, “From touchpoints to journeys: Seeing the world as customers do,” March 2016, McKinsey.com.

Søren Jakobsen is an associate partner in McKinsey's Oslo office, **Kedar Naik** is a partner in the Brussels office, **Nikolaus Raberger** is an associate partner in the Vienna office, and **Georg Winkler** is a partner in the Berlin office.

Copyright © 2017 McKinsey & Company.
All rights reserved.