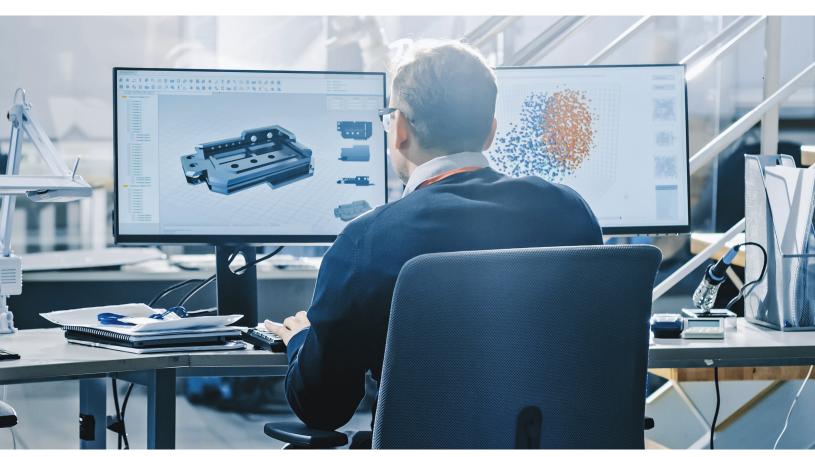
McKinsey & Company

Advanced Electronics Practice

Building and sustaining value in advanced industries through analytics-enabled pricing

Companies that adopt an analytics-driven approach to pricing are more likely to thrive than companies that maintain the status quo.

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Across industries, businesses are facing the biggest economic shock since World War II as the novel coronavirus continues its global spread. In just a few months, unprecedented shifts in demand, costs, and supply chains have rendered time-tested pricing, sales, and operating mechanisms obsolete. To survive and thrive, many business leaders have already decided to recalibrate and retool their processes.

Advanced industries (AI) companies face particular challenges when developing new pricing strategies, because they have multiple sales channels, complex product portfolios with thousands of products, and fragmented customer bases. Adding to these complications, most AI companies have limited pricing-performance data, including the impact of discounts. The lack of detailed insights has caused many companies to implement 2 to 4 percent blanket price increases across their portfolios each year, which they justify by pointing to a similar increase in input prices, including those for rawmaterial inputs.

Such a broad, one-size-fits-all approach may not work in the current environment, because of elevated volatility in both supply and demand. Instead, Al leaders should focus on using digital and analytics tools to improve their pricing strategy, preserve value, and meet customer needs. By generating higher margins, they will have more to reinvest in product-portfolio improvements.

Operating in a challenging environment

While businesses in almost every sector face disruptions, Al companies are among the hardest hit. A recent McKinsey survey of B2B decision makers¹ found that Al leaders in the US reported some of the sharpest declines in both operational capacity and demand for products and services (Exhibit 1). In April 2020, about half of the Al

respondents expected their companies to decrease short-term spending on capital equipment, processing supplies, and packaging (Exhibit 2). Some anticipated big declines—for instance, about 25 percent expected capital-equipment spending to decrease more than 10 percent from 2019 to 2020. Al companies also planned to reduce spending in many other areas, which will ripple back to affect any suppliers that provide them with parts, components, or other inputs.

With demand falling and customers becoming increasingly cost-conscious, Al companies are facing pressure on the supply side to reduce prices, and many have already made cuts. In July 2020, the Producer Price Index showed that average selling prices for US manufacturing companies had fallen 2 percent from the previous year. To adapt to these uncertain times, Al leaders should focus on leveraging digital and analytics tools to improve three strategic activities: achieve price granularity through advanced analytics, think beyond the topline price, and obtain data-enabled performance transparency.

Achieving price granularity through advanced analytics

The crisis's impact on product and customer segments can vary greatly. For instance, Al companies experienced a sharper drop in demand for machinery and other products from their oil and gas customers, compared with their food-and-beverage customers. Likewise, demand shifts for original equipment may be very different from those in the aftermarket.

To meet customer needs, AI companies must understand the changes occurring in each portfolio segment at a detailed level. Traditionally, attempts to generate such insights have been challenged by archaic data-collecting and -processing

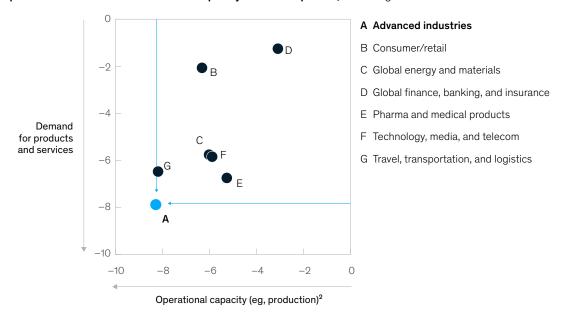
 $^{^{\}rm 1}$ "Global B2B decision-maker response to COVID-19 crisis," May 11, 2020, McKinsey.com.

 $^{^2\,\}mbox{Producer}$ Price Index, US Bureau of Labor Statistics, bls.gov.

Exhibit 1

Companies in advanced industries have experienced significant decreases in demand and capacity.

Impact of COVID-19 on demand and capacity at US companies, 1% change



Note: Figures may not sum to 100%, because of rounding.

'Questions: How has the coronavirus (COVID-19) situation affected your company's production (operation) capacity? How has the coronavirus (COVID-19) situation affected demand for your company's products/services?

²Weighted average.

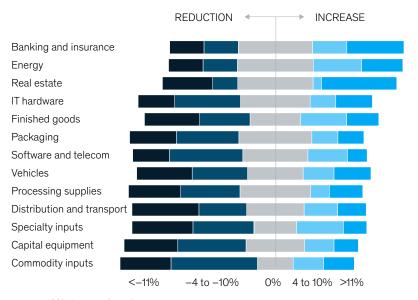
Source: McKinsey COVID-19 B2B Decision-Maker Pulse #2, April 20–27, 2020 (n = 607)

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Exhibit 2

Advanced industries plan to decrease spending across most categories, with packaging, processing supplies, and capital equipment hardest hit.

% change expected in the next 2 weeks, 1 % of respondents



Note: Figures may not sum to 100%, because of rounding.

1Questions: How do you think spending on the following may change in the next two weeks?

Source: McKinsey B2B Decision-Maker Pulse Survey, April 7, 2020 (n = 622 overall, n = 151 for advanced industries)

systems, making it difficult to compile and share comprehensive information easily. Many Al companies also follow decentralized pricing approaches, which lead to greater variation throughout their organizations. Al leaders can overcome these challenges by using digital and analytics tools to accomplish the following tasks:

- connect and review information from different databases, allowing companies to obtain more valuable insights
- segment large and complex product portfolios by detailed criteria, such as key features and degree of differentiation from competitors
- segment the customer base by looking at specific attributes such as value drivers (for

instance, speed of delivery), relationship type, industry, geography, and size

Comprehensive data analyses will allow AI companies to identify pockets of opportunity and develop targeted responses with precision. Their pricing strategies will reflect a nuanced understanding of both demand patterns and customer needs, allowing them to move quickly when capturing growth pockets.

One midcap industrial OEM applied digital and analytics tools after deciding that its traditional portfolio-wide increases of 2 to 4 percent were no longer appropriate. The company's analytics revealed that about 68 percent of products did not warrant price increases given input costs, competitor pricing strategies, and other factors

(Exhibit 3). For the remaining portfolio, more robust price adjustments were warranted, since the current pricing architecture did not accurately reflect the cost to serve and value delivered to customers. The company took a nuanced approach to price changes, rather than relying on blanket increases. As one example, it determined that some products only merited price increases of 3 percent or less, while others could remain competitive if prices increased between 12 and 15 percent. Implementing these pricing corrections was relatively easy, since the company's new analytics provided detailed insights at the product level.

Likewise, the company's analysis of the customer base revealed that it needed to rationalize its discount structure by product competitiveness and more objective distributor-performance criteria. Through the analysis, the company discovered that no changes were warranted for about 64 percent of customers; for the remainder, some price increases were in order, with the exact amount depending on the specific customer segment and product type.

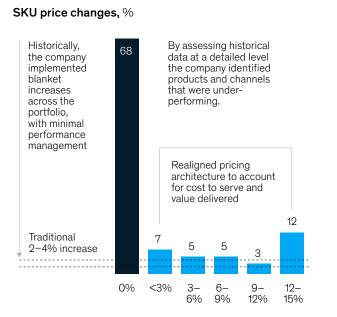
While a detailed product and customer segmentation is extremely valuable, many Al businesses do not yet have the tools or capabilities required for such analytics. If they invest in these areas now, they will have an advantage once they enter the next normal and demand begins to escalate.

Think beyond the top-line price

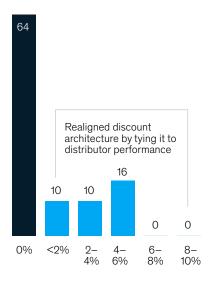
Both buyers and sellers tend to focus on top-line product pricing. When sales volumes decline, companies often use price reductions to shore up short-term demand. Given the current volatility in supply and demand, discounts may not produce

Exhibit 3

An original-equipment manufacturer used advanced analytics, combined with a customer and product segmentation, to identify pockets of opportunity.



Increase in net price (based on changes to customer discounts), %



Companies that improve their pricing architecture and introduce new analytics tools may find themselves in the strongest position to help their customers navigate the crisis and thrive in the next normal.

the same results and could unintentionally trigger price wars.

If leaders think about issues beyond top-line price—all costs and benefits to their customers—they could develop a more compelling offering. To do so, however, they must become much more flexible and innovative about all aspects of their commercial arrangements. Effective strategies might include the following:

- adjusting terms and conditions, such as change fees, minimum-order quantities, and charges for expedited shipping and other add-ons
- providing benefits in kind, such as free design consultations, warranty or servicecontract extensions, and credit for future spare-part purchases
- aligning payment terms with customer cash flows—for instance, extending due dates or linking payments to a customer's sales
- creating temporary offers with an attractive value proposition, such as a six-month warranty extension for equipment, to encourage customers to make an immediate purchase
- reducing risks associated with purchases by offering options such as buybacks for highvolume equipment to refurbish and resell

One industrial-components manufacturer that supplies tier-two and -three integrators deployed analytics tools that identified an upcoming decline in demand that would occur because many customers had stopped or delayed some specialized construction projects. In response, the company reduced its minimum order quantities to support its smaller customers and provided free solutiondesign services for a limited time. Similarly, another industrial OEM that used analytics tools was able to recognize that demand would fall because many of its customers were significantly limiting or temporarily closing their operations. To assist them, the company reduced its monthly maintenance fee by 80 percent for any periods when customers had ceased operations.

In both of these examples, the companies provided strong customer support while limiting changes to their top-line price. Analytics tools played a pivotal role in the early identification of declining demand, and their insights allowed leaders to make informed decisions. Their flexible and innovative policies helped build customer trust while maintaining long-term value.

Obtain data-enabled performance transparency

Many Al companies struggle to make informed and accurate pricing decisions because they lack transparency during the decision-making process.

All too often, this situation occurs because they do not establish metrics for pricing performance or because they lack the appropriate analytical tools. To address these issues, leaders should create a clear pricing strategy that aligns with the company's strategic objectives. A cross-functional team, typically including sales, pricing, and finance leaders, should handle the most important pricing decisions. This group is often referred to as a pricing nerve center. For better performance management, companies should align on five to seven key metrics. These should include both leading indicators for the sales funnel, such as the size of the pipeline and the average age of deals in progress, and lagging indicators of realized performance, such as the number of orders closed on a weekly basis. Leaders should receive weekly updates on pricing metrics to monitor emerging trends closely and take action or implement corrective measures when needed. Digital and analytical tools can help to produce these updates in a more timely way and reduce the error margin. Companies that can automate reporting and make the results broadly available may see the greatest improvement in their efforts to be nimble and capture growth opportunities.

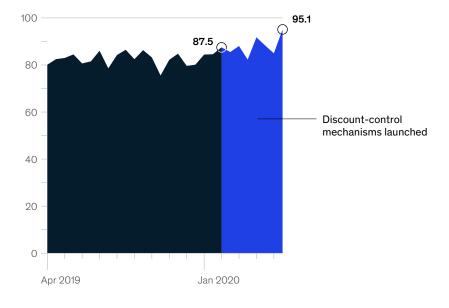
A machinery manufacturer that was experiencing a 50 to 60 percent decline in demand for parts was able to limit the impact by creating more pricing transparency (Exhibit 4). It segmented customers by type (whether they were end customers or distributors) and business volumes so that it could establish differentiated discounting tiers. The company also established a central team—the pricing nerve center—and designed digital and analytics dashboards that automated the reporting process and provided detailed insights about pricing, discounts, and sales volumes.

The pricing nerve center conducted weekly assessments of upcoming deals to determine

Exhibit 4

A machinery manufacturer used advanced analytics to optimize its discount strategy.

2-week average realized price on parts sales, % of list price



if additional flexibility was needed to pursue emerging opportunities. In special cases, such as deals involving new customers or those struggling financially, the pricing nerve center sometimes recommended discounts or other incentives to support the business. The new analytics dashboards also enabled the early identification of margin reductions on "flow" businesses, such as the aftermarket, by decomposing the realized margin into its list price, discount, and volume components. With this information, the pricing never center was able to take prompt actions to restore margins.

Similarly, a midsize industrial OEM had several product lines that faced intense competition, keeping margins low. To win deals, field sales staff offered indiscriminate discounts, and the company did not revise any list prices. With lower volumes expected

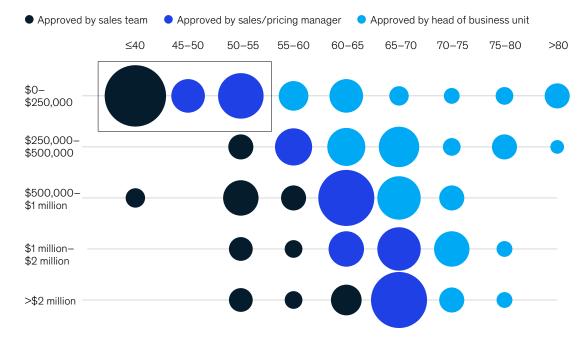
in the coming quarters, the company began to use new digital and analytics tools to implement strong discount controls. Among other benefits, the analytics allowed leaders to track discounts on smaller deals and determine what level of approval they needed in the organization (Exhibit 5). Such deals had previously been overlooked, and some small businesses received the same generous discounts as large accounts that purchased high volumes.

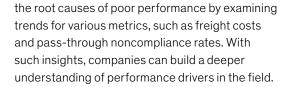
At both the machinery manufacturer and the OEM, leaders realized that better analytics would require new tools and processes, such as automated flagging for freight-cost increases and clear steps for delegating authority to approve price changes. In addition to helping companies develop better strategies, such analytics allow leaders to diagnose

Exhibit 5

A midsize original-equipment manufacturer used analytical tools to monitor discounts and create new approval thresholds.

By applying new analytical tools, a company compared its discounts with those of peers that undertook similar deals, leading it to revise strategy.





Al companies are now in a unique situation. They must prepare a long-term strategy that allows them to generate value while continuing to support customers that are dealing with urgent short-term challenges. Companies that improve their pricing architecture and introduce new analytics tools may find themselves in the strongest position to help their customers navigate the crisis and thrive in the next normal.

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