As the COVID-19 pandemic continues to upend people’s lives, consumers’ needs have fundamentally changed from what they were just a couple of months ago. With top lines suddenly in jeopardy, many consumer-facing companies confront the daunting challenge of anticipating the future course of demand that is shifting unpredictably across categories, channels, and geographies. Yet traditional data and analytics don’t allow most firms to respond effectively to these shifts.

To get ahead of the chaos, consumer companies need to build themselves a Lighthouse. A BCG-developed combination of real-time data, analytics, and human capabilities, Lighthouse can help firms capture and analyze real-time business intelligence to better understand current consumer demand, supply availability, and the state of the business. (See Exhibit 1.)

Lighthouse’s blend of technological and human intelligence demonstrates how bionic capabilities can help companies respond more adroitly to crises. A Lighthouse capability significantly improves on traditional methods of collecting and using business intelligence. Take demand signals, for example. Traditional signals such as sales data usually suffer from lag time, blind spots, and a lack of granularity overall. Compounding the problem, many companies don’t use their analytics function to the fullest extent.

In contrast, a Lighthouse intelligence layer collects and combines real-time demand signals from many different sources, such as footfall and web traffic, to create a single source of truth. Going beyond the capabilities of traditional analytics, Lighthouse analytics can decode demand signals that may not appear to be valuable at first sight.

By using Lighthouse, we found a strong correlation between web traffic signals and actual sales in categories ranging from groceries to luxury goods. Notably, these correlations were strongest 10 to 15 days before the actual sales transactions occurred, suggesting that online demand signals can act as a leading indicator.
Lighthouse’s superior data and analytics capabilities enable consumer companies to paint a much more detailed, comprehensive, and accurate picture of consumer demand than traditional methods can. Specific task forces across the organization can then leverage this intelligence to take the steps necessary to mount the most effective response in a period of demand volatility.

What Current Demand Signals Are Saying
Lighthouse capabilities are critical for assessing various signals of customer demand. Footfall and web traffic serve as good examples. Footfall, defined as the number of customers entering physical stores and shopping areas, is a proxy for brick-and-mortar demand, while web traffic is a proxy for online demand. We analyzed footfall and web traffic to better understand the relationship between COVID-19 lockdown measures and offline and online demand in different industry subsectors and countries during the period from February to April 2020.

Insight #1: Lockdown Measures and Footfall
Because footfall data acts as a direct metric of a store’s purchasing opportunities, it is the first place to look for clues of changing customer demand. We compared footfall data before and after COVID-19 lockdown measures took effect to understand the connection between these measures and the number of customers visiting stores.

Not surprisingly, the connection is quite clear in Italy, which experienced a large drop in grocery and retail visits after the country’s lockdown began. It is also evident in countries such as Germany, where lockdown measures were less strict. Because this connection comports with common sense, it also serves as sanity check.

However, the data for the period that follows—when lockdown measures begin to lift—is more surprising. In South Korea, where offline demand has been recovering for about a month, footfall has started rising with the easing of restrictions, but it is rising much more slowly than it fell. Grocery data, retail data, and residential footfall data all indicate that although people were going out more during this phase than during the period of lockdown, they were still spending more time at home than they had in the days before COVID-19.

The Lighthouse thus provides a more nuanced picture of customer demand than was previously possible. Even after restric-
tions are completely lifted, the recovery in demand will probably continue to occur slowly in South Korea and elsewhere.

**Insight #2: Footfall and Web Traffic**

In the grocery subsector, web traffic since the lockdowns began has been well above baseline levels in most of the countries we analyzed. Online traffic is inversely correlated with footfall: as soon as footfall decreases, web activity increases. This makes perfect sense: if people can’t buy groceries themselves, they’ll pay an online service to do the buying for them.

The demand signals for retail goods are less straightforward. In this subsector, a decrease in footfall does not seem linked in a simple way to an increase in web traffic. This can be inferred from data on consumer behavior during two phases of the pandemic: in March, both footfall and web traffic dropped; but in April, footfall stayed low while web traffic recovered and eventually surpassed the pre-COVID-19 baseline levels. (See Exhibit 2.)

These demand signals indicate that people are adapting to a new reality in which online is the place to make purchases because visits to physical stores are prohibited or greatly constrained. Another factor to consider is that some consumers are taking advantage of online promotions on seasonal or perishable items that retailers are offering in order to reduce inventory. This is one of the many tactics that companies can and should be thinking about using in order to capitalize on the growth in online demand.

The difference in grocery and retail data seems intuitively reasonable: people tend to think of groceries—but not retail items—as essential. One would therefore expect grocery web traffic to rise when foot traffic falls.

But the resurgence of web traffic beyond pre-pandemic levels is unexpected—especially in the US, where it surpassed pre-COVID-19 levels by 40%. We may infer that people resumed their buying habits as it became clear that access to retail stores was going to be limited for a while. It fol-

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**Exhibit 2 | Retail Footfall vs. Web Traffic**

*Source: BCG analysis.*

*Data shown is for consumer goods and retail: beauty and cosmetics, beverages, consumer electronics, fashion and apparel, jewelry and luxury products, furniture, restaurants and delivery, and home and garden.*
lows that retailers should focus their attention on their online channels.

**Insight #3: Web Traffic over Time**

Zooming in on the fashion and apparel subsector in the US, the UK, Germany, and Italy, we can see that online demand began stabilizing in April after dropping significantly in March. (See Exhibit 3.) Even so, it remained well below its pre-COVID-19 baseline—strong evidence that the fashion subsector continues to struggle. This is especially the case in Italy, whereas in Germany things seem to be going better.

To eliminate the possibility that seasonality is to blame, we compared the data for 2020 with web traffic volume from past years for the same time of year. In mid-March, fashion and apparel web traffic in both countries dropped considerably below the expected seasonal range, indicating that the decrease in web traffic was not due to seasonal effects. Interestingly, although web traffic overall was significantly lower in Italy, it declined and recovered more sharply in Germany.

**Taking Advantage of the Takeaways**

Although much about the COVID-19 crisis remains uncertain, it seems fair to say that this new reality is going to last for a while. As the chaos persists, customer demand will likely continue to evolve in surprising ways. This makes a Lighthouse capability, with its granular and nuanced approach to data and analytics, a strategic necessity for any company that wants to intelligently navigate the future.

Building a Lighthouse capability is no small undertaking. It requires rewiring processes, developing new systems, and adopting new ways of working. But the advantage that it confers on planners—the ability to make better-informed business decisions—justifies the effort.

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**EXHIBIT 3 | Fashion and Apparel Web Traffic**

Web traffic for top 100 domains in fashion and apparel (seven-day moving average)

Historic trend and seasonality based on FB Prophet model with weekly and yearly trends and public holidays

**Zoom-in**

Period of COVID-19 impact

Sources: SimilarWeb data (www.similarweb.com); Google Trends; BCG analysis.
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