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Navigating the new normal with data driven decision making

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Introduction

Most of us could never have imagined the onset of the COVID-19 pandemic and more crucially the unparalleled effect it is having on everything that we used to consider normal. Businesses that survive the initial crisis will have to navigate through the recovery period, which some analysts say will be even harder on balance sheets than the shutdown. Government and public services organizations are also having to reform and transform the way they operate due to the effects of the pandemic on the citizens they serve and staff and suppliers, often from private sector, who deliver the services.

No one really knows how long the recovery will last or what shape it will take, but clearly we will have to find new ways to manage in what is sure to be a “new normal” post-pandemic.

Organizations need to perform complex analysis such as segmentation, eligibility, personalization and trend and options analysis when delivering customer and/or citizen services. A startling fact, however, is that to get through this time, organizations might not be able to rely on their well-established decision-making tools and models. Tools like AI, machine learning, and predictive models won’t be able to function exactly as designed in this new normal. Why? Because they will be based on historic precedence in a time where everything will be different in unprecedented ways.

Weathering the new normal

The very novelty of today's circumstances undercuts the use of tools that have been trained and optimized based on historic data going back several years. But one timeless truism is that the best decision techniques are based on the use of data. The more dynamic the variables and unpredictable the circumstances, the more important it is for organizations to make data-driven decisions. If data-driven decision making was a competitive advantage before the pandemic, now it is a tool for survival.

If historical precedence can't help with the analysis of data, what will? The answer is "what if" scenario simulations—with a twist. Most contemporary "what if" scenario simulations would have used historical data and patterns to predict.

The new, post-pandemic 'what if' simulations will need to work with much more dynamic data and much less of it—and answer very different questions.

Simulators will need to use a digital replica of the business and draw on algorithms that are better at working with lower data volumes and can calculate thousands or millions of possible outcomes based on the latest circumstances at any given point in time.

It's similar to predicting the weather: the accuracy of long-term forecasts are low, while very short-term ones are high—but still not perfect. You use the weather forecast as a guide to make decisions on a day-to-day basis. Likewise, "what if" simulations will need to be run frequently as the business or market changes, which can be hourly or daily.

The viability of organizations adopting these new types of simulation-based tools to make decisions will depend on the following factors:

How digitally do you operate? In order to simulate highly volatile circumstances, your organization needs to operate and produce digital information and data on a real-time basis that can then be used as input to run dynamic simulations.

What is your data science capability? Do you have people in-house who have the skills and technologies to develop these new tools and, more critically, can you invest funds to do it?

Investing in the new normal

While many organizations are operating digitally, few are likely to have the capabilities to develop new tools, and even fewer will have the funding—especially in these desperate times when cash is king. This is also true in the public sector where new government investments are likely to be focused on health and economic recovery while the budgets for other public service areas will remain the same or likely reduced.

In the new normal, industries and governments will have to find ways to fund, develop, and utilize data and analytics tools that will drive businesses, markets, and society to recover and thrive. The following is a guide on how to navigate the new normal using new data-driven approaches:

- **Be led by the science:** Given that the response to the pandemic is led by science, organizations should follow suit. Leaders should drop all notions of instinct-based decision-making and rewire the mindset and cultural DNA of their organizations to be data—or science—driven. For data science to work, the organization should be operating digitally. That is, all processes should be enabled by digital systems and produce data on a real-time basis. For those who are not yet on the digital journey, this is the existential event that doesn't give you a choice in the matter.

- **One for all, all for one on data:** No organization operates in a vacuum. So to get the most effective results, the scope of "what if" simulations should be the entire value network, including customers. This means the more data the ecosystem generates and makes available to the rest of the network, the better the results will be for all. Commercial value-network collaboration is already happening in order to respond to the pandemic. Extending this to data sharing will enable value-network simulation. While this approach will not be without challenges in the private sector, it should be especially feasible and appropriate for public sector organizations to come together to share data that can improve the services they deliver. Governments can play a key role here in facilitating better and safe data sharing across private and public sectors through policy and regulation. Regulation, in this instance can actually be an enabler for organizations to share data with more confidence. Global collaboration by governments in policy development and regulation will make it even more effective.

- **The co-op model for data science:** Most organizations in the recovery phase of the pandemic will have neither the people with the skills to build new tools nor the funding. If you do, congratulations; but you will be in the minority. If organizations try to build these capabilities individually, data science and digital technology skills will become even more scarce and expensive in a market where they were already in short supply prior to the pandemic. There needs to be a new approach: creating centers of excellence (CoEs) for digital AI and data science simulation. These will follow a co-op model for funding, development, and usage of tools. Member organizations will share the cost of development of AI and data science simulation tools inside a CoE and share the benefits of the output. This model can be accelerated by government policies and investment that could fund such centers as part of economic stimulus measures. Again, the co-op model for AI and data science simulation is especially feasible for public sector organizations, which can share data to improve the services they deliver to the public. There may already be public sector organizations that perform data and statistical reporting functions that can be candidates for catalyzing CoEs, such as the Office of National Statistics in the United Kingdom and the Department of Commerce in the United States.

- **Use the right tech recipe:** While there are numerous technologies and techniques to select from, using the right combination to develop scaled, industrialized solutions will determine the "time to market" factor. This can indicate how quickly you can start using a tool and realizing its benefits. In this case, blending simulation technologies with AI techniques—using big data stored and run on the cloud that can, in turn, be scaled—is the right combination for "what if" simulators. The use of public cloud platforms securely by public sector organizations are well publicized and should not stand as a barrier anymore. As simulators will need to adapt to changes in the market, taking a more platform approach is advisable, rather than a fixed solution. This means using the components you have built as a platform and then developing new simulation algorithms on top to answer new questions each time as they arise. This gives the organization the agility to respond to market dynamics.

- **Diversity and inclusivity still matter:** All the reasons that diversity in your workforce mattered before the pandemic, matter now even more. Markets and businesses will need diversity in thinking, diversity in execution, and most importantly, diversity in adapting to the new normal. This level of change will require people who can think differently. It will need everyone to come up with ideas and every voice to be heard and matter within an organization. Because someone's voice today can be the answer to a problem tomorrow.

If the pandemic has not imposed radical change already, in the future most businesses will need to reinvent or profoundly change their business models and ways of working to recover and grow again.

Thriving in the new normal

Without a doubt the pandemic is forcing us to change the way we live and work. These are changes that under "normal" circumstances were near impossible to implement due to differences in politics and varying viewpoints within businesses. Now though, harnessing the power of data and analytics is critical to navigating the recovery from this crisis and arriving at a place where you can thrive. The new normal is about change—and that can lead organizations to be even stronger post-crisis than they were before.

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