Advancing Intelligence: Leveraging data to thrive amid disruption



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About the research and acknowledgements

Advancing Intelligence: Leveraging data to thrive amid disruption is a report from The Economist Intelligence Unit, sponsored by Workday, which explores the opportunities and challenges of a changing data landscape, in particular during times of disruption. Kim Andreasson is the author and Michael Gold the editor. Interviews were conducted with industry executives and experts and supplemented by wide-ranging desk research. Our thanks are due to the following for their time and insights:

- Revathi Greenwood, global head of data and insights, Cushman & Wakefield
- Swamy Kocherlakota, executive vice-president and chief information officer, S&P Global
- Marie Myers, chief transformation officer, HP Inc
- Adam Stanley, chief information officer, Cushman & Wakefield

Executive summary

The rapidly-growing amount of data being generated amid today's unprecedented business environment creates new opportunities and challenges. In order to compete in this new landscape, firms must take the opportunity to use data to improve services and internal operations through reporting and analytics, machine learning (ML) and artificial intelligence (AI). Leveraging data can reduce costs and provide opportunities for innovation. At the same time, cyber-security and data privacy present challenges as the type and amount of data that companies hold come under scrutiny. In the current distributed-work environment, data may be at ever greater risk of cyber-theft. Organisational roles and structures must evolve to meet the moment. This report presents cases of companies that are aware of the importance of using data to their advantage and the challenges they face in doing so.

The key findings are:

- Leveraging data is becoming a critical aspect of business-as-usual, as highlighted by the covid-19 pandemic.

 This is driven by customer expectations, such as a rapid rise in e-commerce, but also by internal solutions, such as the discovery of operational efficiencies in the "new normal" as a means of staying ahead of the competition during times of disruption.
- Current disruptions have forced companies to quickly shift to a digital-first mode, highlighting the role of technology. The covid-19 pandemic is forcing massive business shifts that affect the role of data as it relates to people and operations, in particular the elevated status of technology within the enterprise generally and data more specifically.

- The focus is shifting from indiscriminately hoovering up data to getting the most out of available and accurate data firms already possess. In the face of the pandemic, organisations need to get accurate and clean data that is meaningful and analyse it effectively to support their digital transformation initiatives. Al and ML are helping differentiate information that is critical to the business in order to enable real-time decision-making.
- Cyber-security and related topics such as data privacy and digital skills are coming into the fore for organisations as they scale up their digital development. Cultural change among employees is viewed as the biggest challenge to developing a data-first mentality. As a result, the technology function will need to leverage a diverse skill set to supercharge the digital transformation of their organisations, especially in times of disruption.
- increase in future, underscoring the role of the technology function—whether it is the chief information officer (CIO), chief transformation/technology officer (CTO) or chief data or digital officer—as crucial to firms' digital endeavours.

 Such roles in turn have to recognise that the C-suite is increasingly relying on them, especially so during times of crisis. As such, they must build partnerships within the function and across the C-suite. They need to explain the strategic importance of data when making business decisions and set the tone for the enterprise by instilling a

digital-first mentality among all employees.

Introduction: The ins and outs of data

As companies increasingly use data of all kinds—the data they collect across their operations, consumer feedback on social media, market intelligence and more—they are inevitably reshaping their data strategies and information flows. Many companies, however, would also benefit from reshaping their organisational structures to promote the technology function: just as data creates the most value when it is integrated and available everywhere, some traditional functions may need to integrate or work together in new ways to understand and fully leverage the business intelligence that data can unlock.

This is all the more imperative in times of stress. Sudden disruptions can compel firms to take a hard and rapid look at where their organisational structure is holding them back from leveraging data in the most effective way possible. Velocity, veracity and the ability to deliver data securely and in ways that can be acted upon effectively will be crucial to firms' response to and recovery strategies. Marie Myers of computing giant HP observes how covid-19 has already sparked rapid transformation in businesses worldwide: "From a digital perspective, what normally would take ten years happened in three months."

The pandemic is highlighting the importance of data during times of disruption, both externally and internally. Externally, it promises a better online experience. E-commerce, for instance, is booming as people stay away from physical stores and shopping malls, with US consumers having spent the equivalent of 1.6m years shopping online so far this year to August.¹



The pandemic is forcing massive business changes guided by data that help to, among other things, anticipate huge swings in demand and the need to modify operations by shifting human, financial or supply-chain resources. Leveraging data in the right way is therefore essential to meeting customer expectations.

"Decision-making has to be data-driven," says Swamy Kocherlakota of financial-services data provider S&P Global. "But we also have to be able to use that data effectively and respond appropriately in order to have the right processes."

Internally, firms must increasingly cope with work-at-home mandates and streamline operations to achieve greater efficiency and develop new insights and business models. Companies that were already embarking on their digital-transformation journey are now in a position to leverage this progress during the current disruption, especially via AI and ML tools.

¹ Adobe Digital Economy Index, Adobe Analytics, July 2020.

The data deluge

"It's inevitable that companies are investing in digital transformation and that data is going to become a much more crucial asset for companies going forward," says Ms Myers. Indeed, this growth is likely to be astronomical: the "Global Datasphere" is predicted to expand from 33 zettabytes in 2018 to 175 by 2025, according to IDC, a technology consultancy. It could also change shape into something quite different to what firms are used to today: the same report estimates that nearly 30% of the world's data will need real-time processing.²

As a result, organisations need an efficient way to manage and secure their data. "One problem is that there's almost too much data. To address this issue, you need to be able to distil the data that's actually useful," explains Revathi Greenwood of real-estate

firm Cushman & Wakefield. "There is a danger that we can get drowned in a tsunami of data that just overwhelms and is not useful for decision-making." As a result, the C-suite and the technology function have to come together and align on the strategic outcomes of the use of data as it needs to be integrated within enterprises to provide continuous planning and agility.

In the quest for solutions, vendors have also become partners instead of mere suppliers. "Your vendors are crucial because they understand your problem. When you have a great relationship with your vendor, you can partner with them around product development," says Ms Myers. "It's important to have really deep relationships that are strategic and not just transactional." Enter the chief information officer (CIO), an everchanging position whose prominence has skyrocketed during the current crisis.



² David Reinsel, John Gantz and John Rydning, <u>The Digitization of the World: From Edge to Core</u>, IDC, November 2018.

The ever-expanding role of the technology function

Long considered peripheral by other C-suite members, the role of the CIO has risen in importance over time. Add to that the development of other technology roles within the IT vertical, such as the CTO (chief transformation/technology officer),³ and this has not only elevated the function as a whole but also created business environments in which these new positions must collaborate closely and effectively.

Covid-19 appears to have further solidified the role of technology within enterprises given their increased reliance on data. "Data and analytics is one of our strategic pillars," explains Ms Greenwood. "This was already the case pre-pandemic and I think that set us up in a really good position to [thrive] amid the disruption." The C-suite is therefore increasingly looking to the technology function to enhance corporate digital play and is paying greater attention to its progress. "I have latitude to do what I need to do to enable, protect and deliver to the company during this time," says Mr Kocherlakota. "No digital transformation can be accomplished without a CIO," adds Ms Myers.

In a transformational or digital role, you're not there to transcend other functions, you're there to bring the other functions along with you" Marie Myers, chief transformation officer, HP Inc

Collaborative spirit

In this new environment, the technology positions described above are increasingly working with other parts of the enterprise, rather than in isolation, in order to promote business-wide understanding of data and how to best utilise it. "I see myself as a primary collaborator. In a transformational or digital role, you're not there to transcend other functions, you're there to bring the other functions along with you," says Ms Myers.

"My team and I have deep relationships across all levels of the organisation," says Adam Stanley, Cushman & Wakefield's CIO. "I think it is critical to get that buy-in and drive the behavioural change that we need to implement digital transformation." Such collaborations have grown increasingly important over the years. Gartner, an IT analysis firm, has highlighted the relationship between the CIO and chief human resources officer, for one—a point that the covid-19 pandemic has thrust into stark relief as entire firms work remotely.⁴

³ Travis M Hessman, "The Rise of the CTO", IndustryWeek, February 5th 2014.

⁴ Christy Pettey, "CIOs should develop competencies to take a larger role in talent management and culture change", Gartner, June 18th 2019.

Security and protection: Wild cards in the contemporary dataverse

Reliance on data also increases the importance of cyber-security and data protection. "[These factors] are absolutely critical as people are working from home and relying on their own internet connections while also generating all this data," says Ms Greenwood. Preparedness in this area is particularly important during times of disruption. "Cyber-security is an underlying pillar of everything we do," says Ms Greenwood, who explains that Cushman & Wakefield boosts its cyber-preparedness by ensuring that security is an integral part of access to its data and systems.

S&P Global, meanwhile, which has approximately 22,000 employees in 30 countries, emphasises localising data to the greatest possible extent. For the past two years they have also undergone "phishing" simulations with employees which mimic a genuine cyber-incursion.

Mr Kocherlakota says these exercises have had a significant positive impact during the current pandemic. "We have to be more cautious about how we are protecting end-devices [as people work from home] so that data loss and compliance risks can be mitigated."

As a result, the company is looking to keep data as localised as possible to take advantage of security and governance capabilities.

"Our employees are able to work in a secure way because we are cloud-first," notes

Mr Kocherlakota. This approach has helped tremendously during the current pandemic.

"Previously, I had 60-plus offices to protect; now I have to worry about 22,000," he says, referring to people working from home. "I have to be more conscious than before about insider threats as phishing attacks have increased significantly."



A changing digital culture

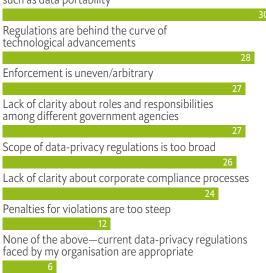
Data privacy has emerged as a crucial discussion point for companies in recent years. This was highlighted by the passage of Europe's General Data Protection Regulation, but also specifically during the current pandemic. Countries and states (and companies) are increasingly concerned about both meeting requirements of domestic legislation and tracking movement of people as part of contact-tracing efforts to stem the pandemic. According to a 2019 report from The Economist Intelligence Unit which surveyed companies in the US, Western Europe, China and South-east Asia about their readiness to face regulations that could affect their use of data, companies face a wide variety of challenges. These most notably include: lack of clarity about consumer rights, such as data portability; regulations falling behind the curve of technological advancements; and uneven/ arbitrary enforcement of existing regulations.5

Figure 1: In search of clarity

What are the biggest data-privacy barriers faced by your organisation with regard to regulations? (% respondents)

Lack of clarity about consumer rights, such as data portability

Source: The Economist Intelligence Unit



Learning the ropes

As a result, most organisations plan to enhance their data-security strategies moving forward—an especially salient point as covid-19 increases reliance on technology. This starts with education. To instil a digital-first mindset, companies need to ensure that all employees can work in an increasingly digital environment. Companies are rolling out internal programmes to assess current skills and how to improve them. HP, for example, views its digital-transformation journey as falling under three pillars: operations, digital (data-driven) and cultural. The technology component is comparatively simple; encouraging employees to embrace a culture of digitalfirst and digital skills is the bigger challenge. "Operationally, you can use technology to transform pretty quickly," says Ms Myers. "The hardest part is cultural: getting people onboard, getting people to the table, and then getting them excited about different ways of working."

One of the programmes that HP recently introduced focuses on "digital fluency". This is an initiative designed for every employee at the company, from entry-level to the C-suite, to assess the extent of digital awareness and understanding among staff. Such campaigns are all the more important as the role of technology during disruption enlarges and emerging skills such as data science and ethical application of AI become increasingly crucial.

⁵ The transparent business barometer: Preparing for the end of easy data, The Economist Intelligence Unit, March 19th 2019.

Conclusion: How data is changing business-as-usual

While concepts like AI and ML may still take time to live up to their promise, the ability to make data-driven decisions is a major aspiration for many firms. To get there, they must develop the capability to identify critical data amid the noise by applying technologies such as predictive modelling and advanced analytics. For most companies this remains a work in progress. In real estate, for example, Ms Greenwood estimates that roughly 40-50% of data is still collected granularly, rather than in batches. "But once it's collected, we are able to store it in an enterprise-level system that we can run through the analytics process." She notes that the firm uses ML for some elements of this analysis and expects these kinds of automation activations to accelerate over the next five years.

The increased use of AI and ML to make sense of data requires agile business strategies and planning across functions, often led by the technology team. "First of all, you've got to transform the process and have the ability to understand process excellence," says Ms Myers. "Operationally, I think this pandemic has shown us that we need to find a way to automate and our processes need to be much more fluid to work in this environment." Indeed, experts interviewed for this report say they are trying to stay agile in response to disruptions, in part by rolling out data solutions locally.

Onwards and upwards

At the same time, the ability to make real-time, data-driven decisions has become much more critical as threats—from cyber-incursions to

pandemics—become all the more disruptive. "Our industry is going to be focusing more on real-time data, but also combining it with historic data to make decisions," says Ms Greenwood. "This gives our clients new insights from data that we deliver through dashboards but we're also looking at Al and ML to speed up implementation of insights."

The lesson is that companies that have already reached a plateau in their digital transformation journeys often need a push to reach the next level. The silver lining of the current pandemic could very well be to accelerate this process and compress ten years of progress in dealing with data into a few heady months.

Key takeaways

- Creating a data-first strategy starts with identifying what data the organisation holds and incorporating aspects of data governance, data management and data security to make sure the data is both where it needs to be and in the correct form.
- 2. Having a strong technology foundation for clean, accurate, secure and meaningful data alongside the ability to analyse it using AI and ML can create a competitive advantage as insights emerge that will help the business thrive.
- Instilling a culture of collaboration between the technology function and the C-suite is essential to align business strategy and make effective use of data to improve decision-making in times of crises and disruption, including the present moment.

The **Economist**

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