HPE GreenLake

Research shows how conquering data management complexities can lead to significant rewards

Embracing cloud-based operations is a key differentiator for data-first leaders.

At a time when data is proliferating at breakneck speed, **data-first** organizations are outperforming their peers.

According to a new study by TechTarget's Enterprise Strategy Group (ESG), data-first leaders are reaping distinct business benefits.[1] It surveyed 750 large midmarket and enterprise organizations and found data-first companies simplify data management by using the cloud to manage their on-premises data. And the payback can be significant. For example, data-first leaders are 13.5 times more likely than laggards to beat competitors to market by multiple quarters.

But to be a data-first organization, it takes more than wishing it to be so. A firm data foundation is required, and that often takes more diligence and hard work than organizations initially realize.

"Many companies have the vision of being a data-driven organization, especially with today's focus on AI. But to do that, they must get the fundamentals right," says Andy Longworth, data platform lead for Advisory and Professional Services at Hewlett Packard Enterprise. The ideal approach starts with an in-depth data discovery process to find out exactly what data you have and where it is located. Once that knowledge is in hand, IT leaders must then work to make it easier for stakeholders to access that data, a critical step to unlocking its value, Longworth explains.

To determine which organizations are data maturity leaders, the researchers used a point system whereby survey respondents earned up to 100 points according to their level of advancement at on-premises data management and infrastructure operations. Achieving a cloud-like experience for both IT and end users, modernizing data protection and recovery operations, and establishing an effective data management strategy all contributed to the points total.

The results placed organizations across a spectrum of four groups based on their level of progress toward achieving cloud-like operations for on-premises data management. The most mature leaders were in the minority, with only 17% of organizations achieving that level while the least mature were the most numerous, at 31%.

"This distribution shows that data-first leadership is out of the ordinary and not achieved without dedication, knowledge, and skill," says Longworth.

In addition, data-first leaders achieve:

37%
greater levels of innovation

31%
greater reductions in infrastructure costs

30%
greater management time savings

[1] "Being a Data-First Leader Continues to Matter," TechTarget's Enterprise Strategy Group, commissioned by Hewlett Packard Enterprise, October 2023

DataOps is a key practice of leaders

Many organizations advancing to data-first leadership are implementing DataOps, a term that describes the block and tackle work that prepares data for analytics. DataOps, akin to DevOps in application development, leverages tools, people, and processes to enable users to have better access to data and the insights that can be pulled from it.

DataOps typically involves automating data pipelines, the paths data must follow from the data source to a datastore for analysis. "The idea is to make small improvements and roll them out in automated processes. Doing so requires all the levels of maturity underneath, including cloud-based management," says Longworth.

The five requirements for becoming truly data first

The survey highlighted five requirements an organization must meet to become a data-first leader:
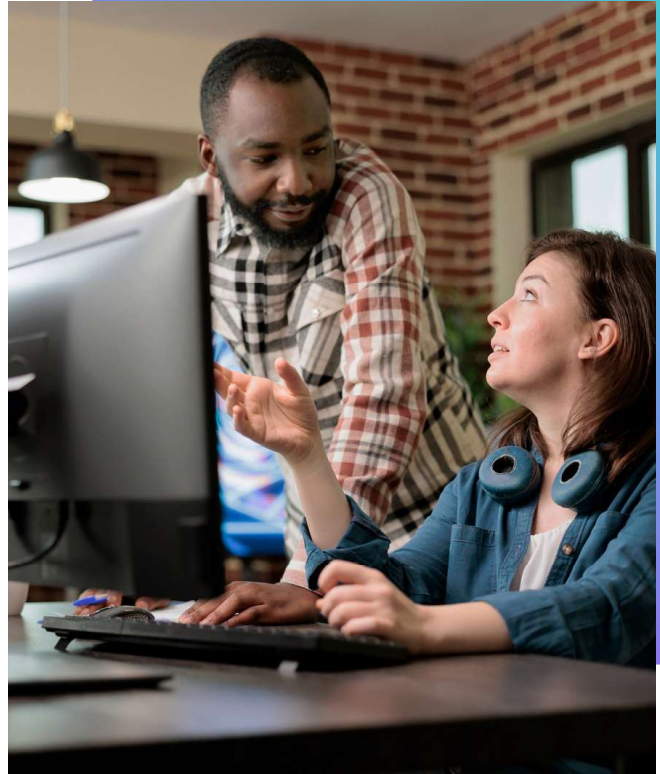
1 **Maturity.** The use of cloud-like management tools for on-premises infrastructure simplifies data management complexity. Mature cloud environments enable organizations to leverage data resources to achieve business agility. Most survey respondents (89%) agreed that this kind of cloud-based management is key.

2 **Automation.** Data-first organizations are far more likely than their peers to entirely automate the tasks of data protection, infrastructure selection, and ongoing management of their on-premises environments.

3 **Prioritization.** When deciding where to deploy applications, data-first organizations demonstrate an understanding of workload needs, select the most appropriate infrastructure to meet them, and allocate resources according to application priority.

4 **Build out.** Data-first leaders create a variety of on-premises, as-a-service offerings to manage cloud services. The resulting hybrid portfolio consists of both new cloud-native workloads and current workloads that have been modernized to be both cloud native and delivered as a service.

5 **Self-service.** Organizations become more agile when line-of-business users provision on-premises data management services and associated IT infrastructure for themselves. Data-first leaders do this with 60% more of their data environment than laggards.

Being data first pays off

Organizations that attained the highest level of data leadership can reap several significant business advantages: speed to market, resilience, security, sustainability, and stakeholder satisfaction.

Data-first leaders are far more likely than their counterparts to beat competitors to the punch with new products and services. Their **speed-to-market** advantage comes from the ability to pull insights from data that shape strategic product direction. "Knowing what product you need to bring to market is the first problem any company must solve," Longworth notes.

Quickly accessing and analyzing customer data, often in real time, for clues about market direction is the critical first step. "The faster you are to market, the more of the market you can capture. But a data laggard reacts to what other people are doing and is not proactive," Longworth says. In fact, the price of sacrificing data-first leadership can be steep. According to the survey, low-maturity organizations are twice as likely as data leaders to struggle to keep pace with their competitors.

For the most mature organizations, data is the source of insightful decision-making. Because data must be readily available to inform judgements, **resilience** is essential. Downtime that blocks access to data is the enemy of effective decision-making. Organizations that implement techniques such as cloud-based data replication can recover from outages faster and minimize the amount of time data is not available to stakeholders. The result is an organization that avoids lapses in business agility, which can cause product delays among other issues.

When it comes to **security**, organizations that have lost control over their data increase their vulnerability to cyberattacks. "The more data you collect, the more infrastructure must be dedicated to retaining it. That increases management burden and the likelihood of error," says Longworth. Organizing data according to value means protecting the most important data while deleting the least significant. Doing so reduces your attack surface, resulting in a far more successful cybersecurity strategy.

Higher data maturity levels also tend to produce infrastructure with greater **sustainability**. For example, cloud-native applications can scale, consuming just the right number of resources. In addition, cloud-native applications can run more efficient workloads, thereby shrinking the infrastructure footprint as well as the carbon footprint.

Awareness of the value and relevance of data also helps increase sustainability. At many organizations, it's not unusual to retain more replicas of data than needed. When using a modern cloud-based architecture, however, servers and storage can operate more efficiently, reducing duplicated data and overprovisioned applications. The carbon footprint shrinks along with the data.

Finally, **stakeholder satisfaction** increases when users gain rapid access to the data they need to do their work efficiently. Cloud-native automation and containerization enable IT leaders to implement self-service for line-of-business stakeholders. When stakeholders can provision their applications instead of going through IT staff, they can move faster.

Accelerating data delivery to stakeholders also improves the way people think about the IT function. The survey measured perceptions of IT and found that data-first organizations earn a significantly higher satisfaction rating across the board, including developers, business continuity and disaster recovery planners, data analysts and scientists, and line-of-business teams.

The time is now to become a data-first leader

For many businesses, the time to act is now: Either they advance on the path of becoming a data-first leader or they fall back to laggard status. As the ESG survey discovered, most organizations are unable to keep up with business demands because infrastructure provisioning simply takes too long. More than three-quarters (76%) said their current data management capabilities weren't up to the task.

"Breaking down data silos, democratizing access to data, and implementing DataOps should be the first priorities of IT decision-makers seeking to raise their organizations to the highest level of maturity," says Longworth. By enabling organizations to simplify data management through a cloud-like operational experience, HPE can be a vital partner, he adds.

"Whether through cloud data services, cloud infrastructure services, or cloud-native data infrastructure, HPE offerings are powered by data-driven intelligence and delivered as a service," Longworth says. "HPE can help any organization become a data-first leader."
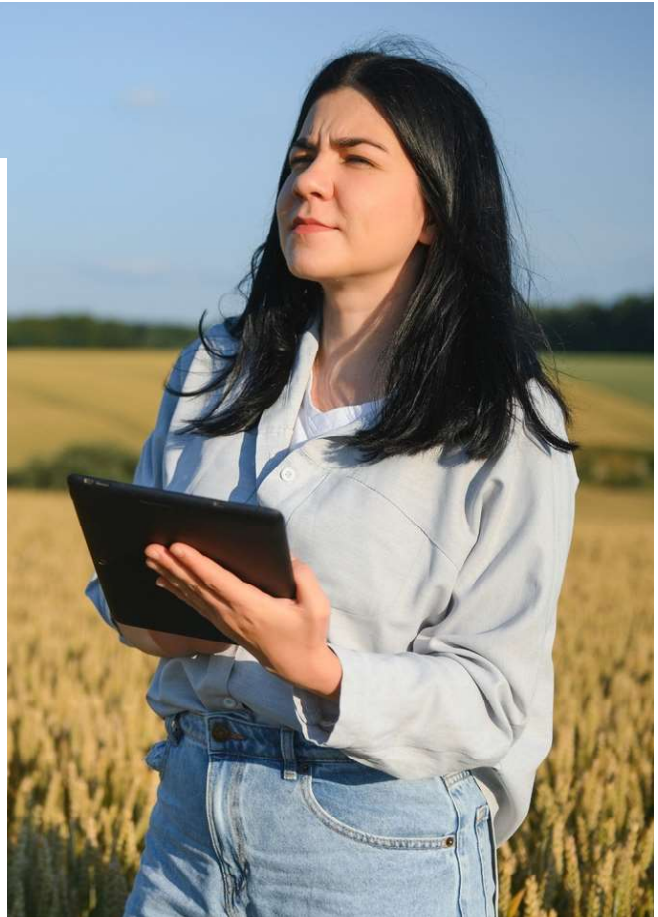
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