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How Data Culture Fuels Business Value in Data-Driven Organizations

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Navigating this White Paper

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Methodology

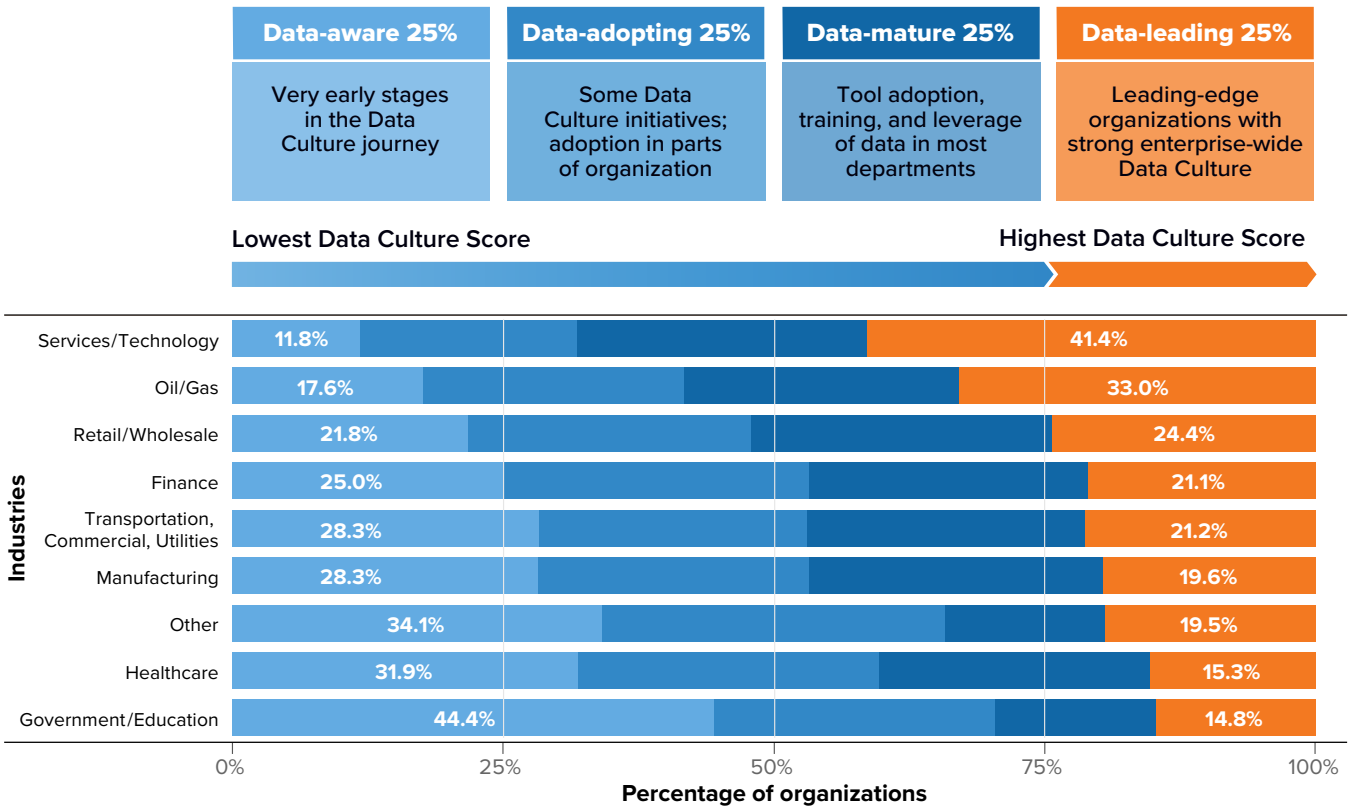
IDC conducted a global survey of 1,100 respondents who use data within their organizations. They comprised a mix of executive and managerial positions and were people with technical and non-technical roles. Survey participants were from organizations with 500+ employees and were located in ten countries: Brazil, Canada, China, France, Germany, India, Japan, Mexico, United Kingdom, and the United States. Respondents represented several industries including financial services, manufacturing, healthcare, professional services/technology, utilities, retail/wholesale, and government/education.

IDC asked survey participants questions that would help identify key explicit and implicit characteristics that influence how data is used in decision making. The survey collected attitudinal and behavioral measures of these characteristics. The analysis of the data helped build a scale to measure the presence and depth of key drivers and an overall measure of Data Culture.

IDC first partnered with Tableau to assess the impact of Data Culture on business outcomes. In this piece, we explore trends at the regional and industry levels. Respondents were classified into one of four groups based on the maturity of their Data Culture. Roughly one quarter of respondents fell into each of the groups as shown in **Figure 1**.

FIGURE 1

Data Culture Maturity



n = 1,100, Source: IDC, 2021

Situation Overview

There is no question that data and analytics form the backbone of digital transformation efforts. Data on its own is meaningless. It has to be made available in the right form, in the right time, and with the necessary context to drive business outcomes.

As businesses adopt data and analytics technologies to become more data-driven, they run into challenges — not for a lack of data or necessary tools but for a lack of data-driven behaviors and beliefs that surround data usage. To truly transform and leverage data and analytics technology investments, organizations need to focus on their people and build a culture that prioritizes data in decision making — also known as Data Culture.

Organizations that pair the right investments in technology with a focus on Data Culture lead the market in being able to take advantage of opportunities, drive growth, foster innovation, and differentiate themselves from their peers.

But in order to foster a Data Culture, there has to be a concerted effort to take an honest look at the pervasive use of data across the entire organization, identify gaps and inhibitions around the use of data, then implement a strategy that addresses the gaps. An organization's executives often mandate that they want to be more data-driven and intelligent, but **Figure 2** shows the difference between the "wants" and "haves" in reality.

FIGURE 2

Gap Between Wants and Haves Around Data

What they want

83% of CEOs want their organizations to be more data-driven

87% of CXOs said being an intelligent enterprise is their top priority

What they have

33% are comfortable questioning KPIs and metrics used in organizations

29% are asked to communicate using data-driven methods

30% say actions are driven by data analysis

34% find it easy to find internal or external collaborator that can help

n = 455, Base = end users, Source: IDC survey, 2021

Data Culture Plays a Large Role in Becoming a Data-Driven Organization

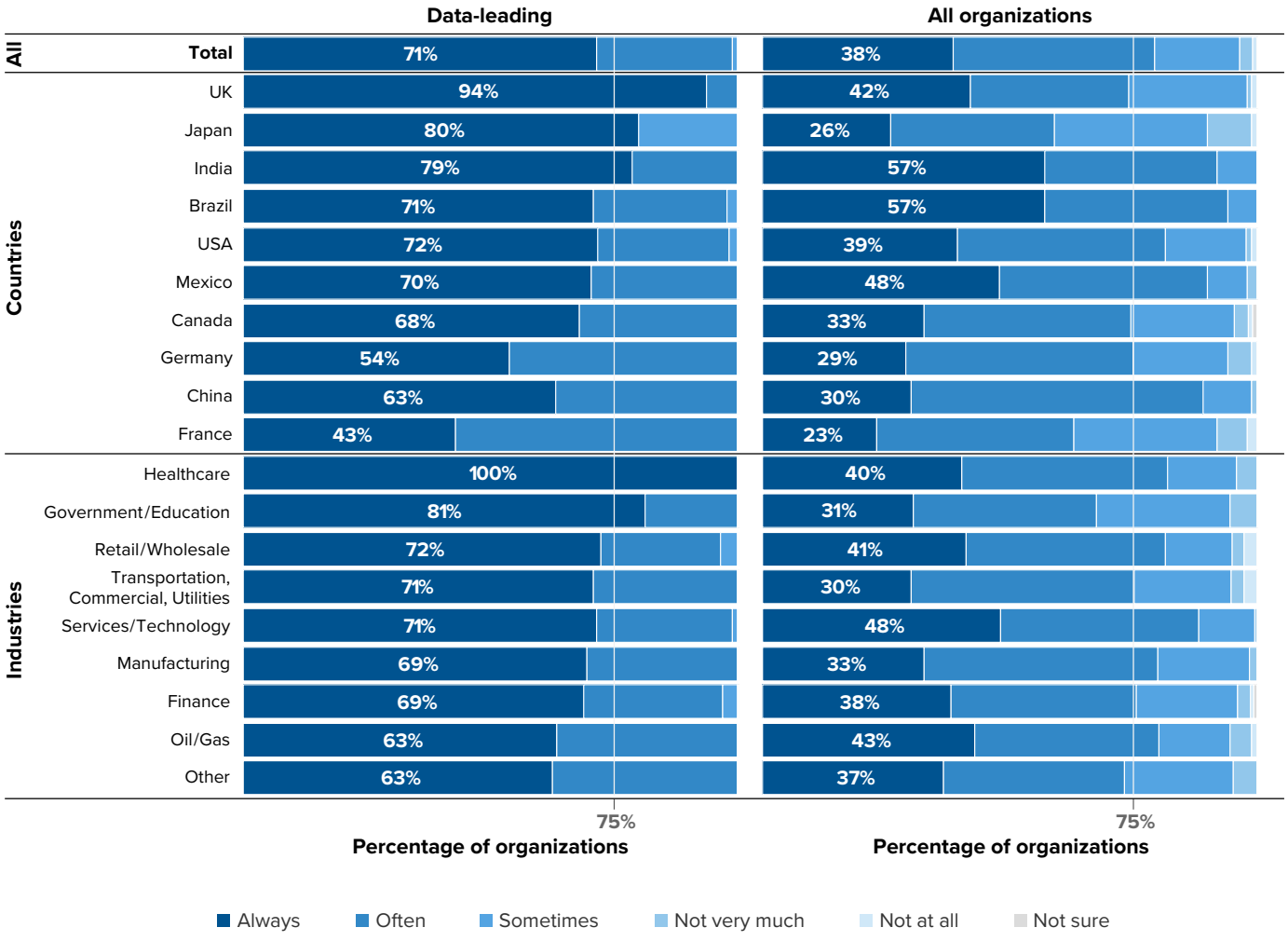
According to IDC survey research, organizations with strong Data Cultures were more likely than their peers to be data-driven, using data in three distinct ways:

1. Integrated into Daily Meetings and Discussions

Incorporating data into daily practice is critical to fostering a Data Culture; this includes meetings, presentations, and discussions. When asked about the frequency of data usage across all meetings, data-leading organizations were 10 times more likely to say data was "always" rather than "sometimes" present **(Figure 3)**.

FIGURE 3

Percentage of Organizations that Always Require Data in Meetings



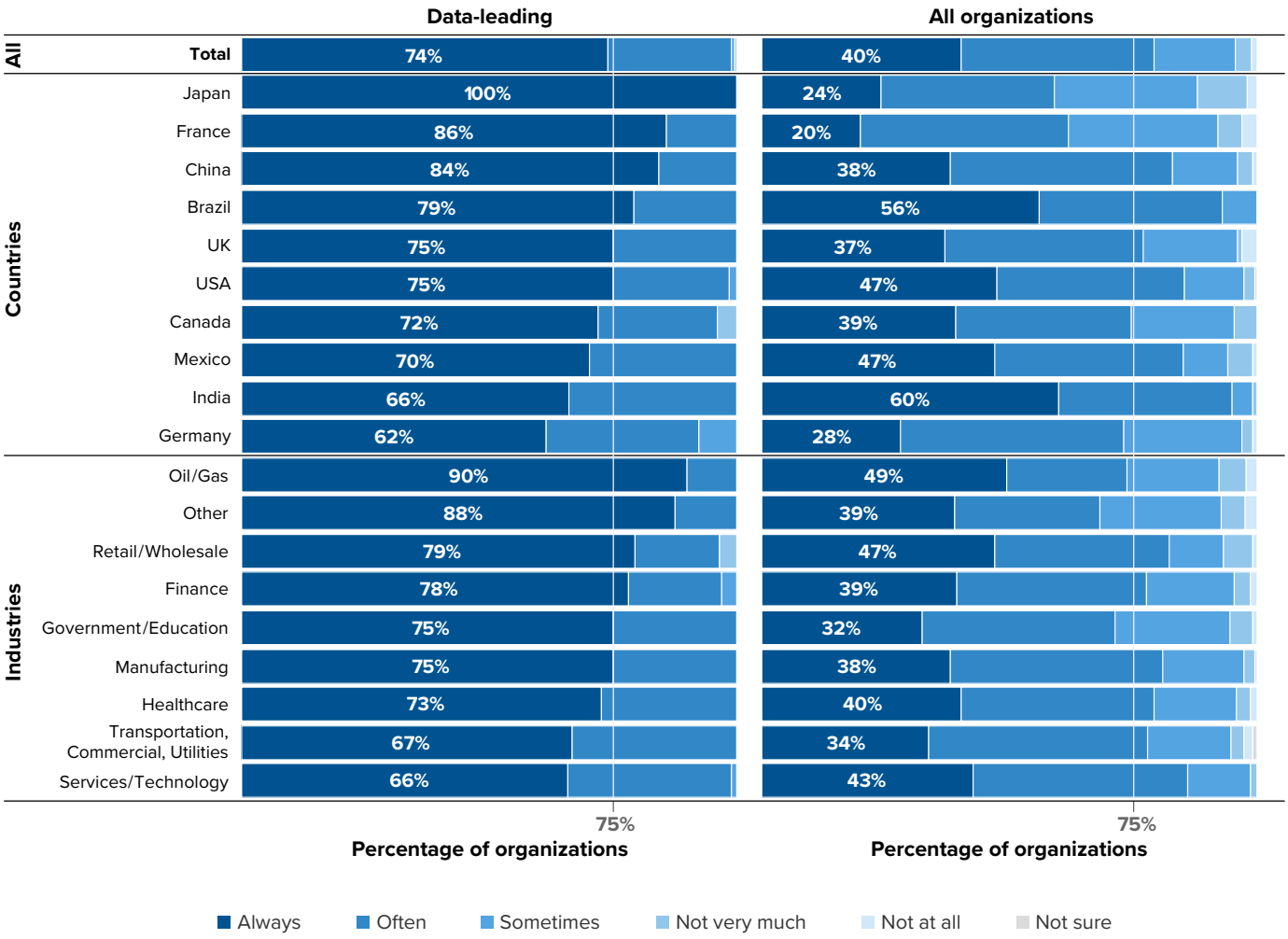
n = 1,100, Source: IDC, 2021

2. When Recommending Next Steps or Actions

During normal business operations, employees often prepare recommendations for next steps or actions. When asked about whether data was required to support recommendations, opinions, or decisions, data-leading respondents were six times more likely to say that data was "always" rather than "sometimes" required **(Figure 4)**.

FIGURE 4

Percentage of Organizations that Always Require Data to Support Recommendations



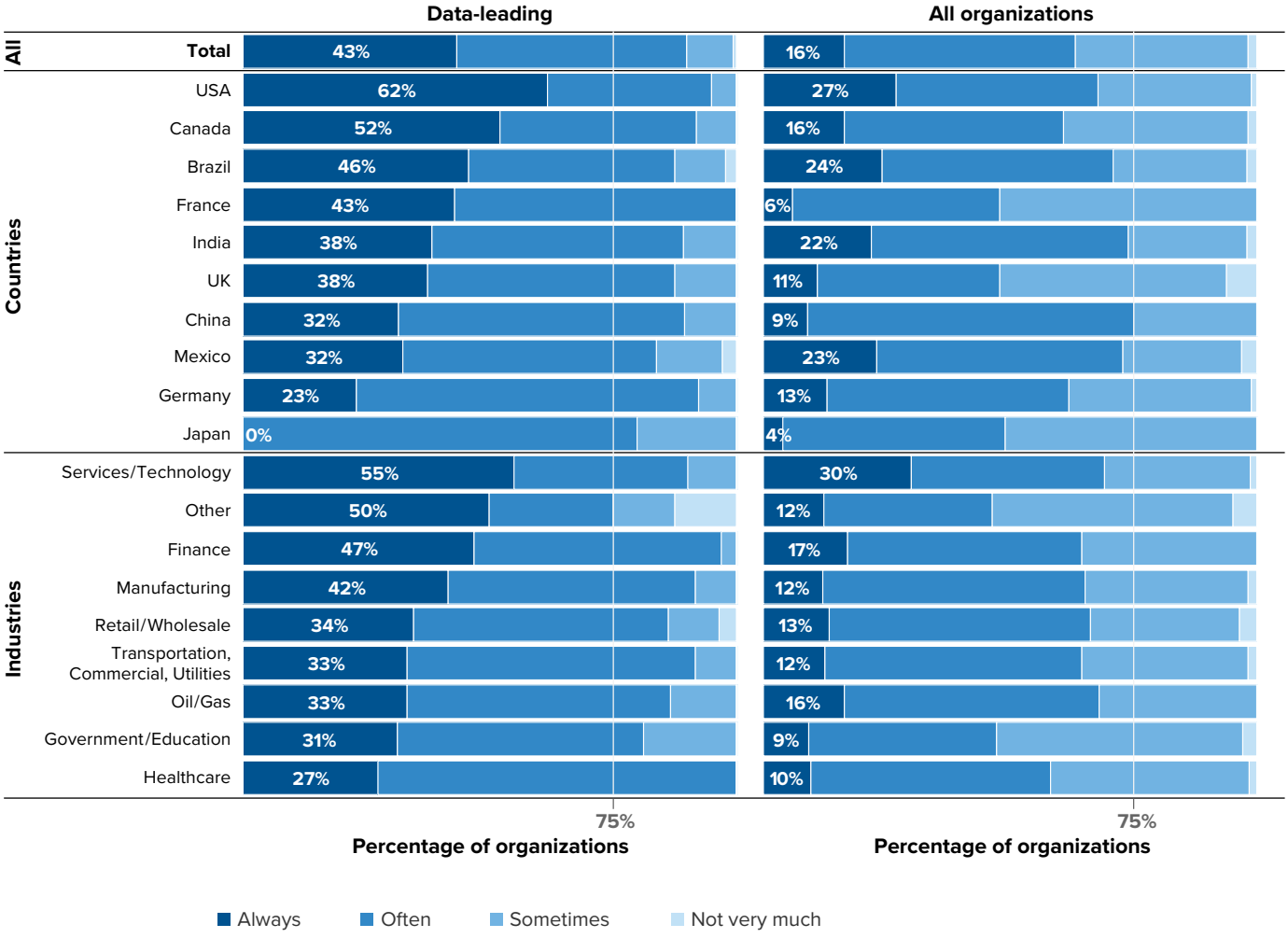
n = 1,100, Source: IDC, 2021

3. To Support Major Decisions

When asked to reflect on major business decisions made in the previous month, data-leading respondents were 4.5 times more likely to say the decision was influenced by data, either displayed in presentations or as a means to aid in substantial discussion **(Figure 5)**.

FIGURE 5

Percentage of Organizations that Always Require Data to Support Major Decisions



n = 1,100, Source: IDC, 2021

Key Trends in Organizations with Strong Data Cultures

The definition of *culture* is a set of shared attributes, values, goals, and practices that characterizes an institution or an organization. As an extension to that, *Data Culture* encompasses the values, behaviors, and attitudes of executives and employees around data used in decision making.

The attributes of Data Culture range from visible characteristics like training methods, tools available, and business processes to more subtle and hard-to-quantify characteristics such as empathy, identity, and confidence in data skills.

In measuring 17 characteristics, we identified five trends in behaviors and beliefs among all of the respondents who fell into the category of data-leading organizations. While there was some localization of these trends at the country level, they were generally held at a global level as well. Overall, we found Brazil and India to have the most optimistic responses, relative to other countries, with Japan, Canada, France, Germany, and the UK responses skewing comparatively pessimistic.

1. Data-Driven Organizations Establish High Talent Expectations for a Wide Spectrum of Data-Related Activities

Being data-driven requires a variety of skills such as being able to find and connect with data, being able to analyze data, being able to interpret data, being able to tell stories with data, and using data in decision making. When enterprises recruit people with the skills above and invest in upskilling their employees, they begin to see the entire organization become more data-driven.

Globally, data-leading companies were **three times more likely** than data-aware organizations to **require new hires** to know how to **persuasively present data** when arguing a point.

Asia/Pacific

In this region, data-aware companies lagged data-leading companies by 45% in the ability of their employees to analyze data. Respondents in China and Japan struggled in this area, performing below average. Companies in India performed above average, receiving a positive grade on their data-literacy investments. **Globally, only 3% of organizations said they did not have any data-skills training for employees;** of these organizations, however, a third were located in Japan, comprising 11% of the responses from that country.

Latin America

Across all countries surveyed, organizations in Mexico reported the greatest successes from data-literacy investments. Both Mexico and Brazil showed above-average scores for the ability to analyze, interpret, and use insights from data. These investments have paid off: **In Latin America, respondents in data-leading companies were seven times better at finding and connecting to data** than respondents in data-aware companies.

North America

The United States was the country most likely to say that data-related training was mandatory for employees, with a quarter of organizations setting the mandatory expectation for all employees. This was largely driven by **37% of data-leading organizations requiring data-skills training for all employees.** Comparatively, Canada was less inclined to make training mandatory, even in organizations with a strong Data Culture. While 13% of all respondents said training was required for all employees, only 16% of data-leading organizations set the mandatory expectation.

Western Europe

Western European companies showed consistently low scores, revealing below-average investments in upskilling employees. While France and the United Kingdom performed slightly behind the global average (by 3 and 4 percentage points, respectively), Germany was 14 percentage points behind. When asked if they agreed with the statement "We have the right people with the right skills to answer our most important business questions with supporting data and analysis," nearly a quarter of German respondents did not agree.

2. Data-Driven Organizations Place Equal Importance on Trust and Accountability

Trust is the foundation for creating a strong culture around accessing and using data. Trust is required for enterprises to give their employees access to data that is relevant to their jobs, and employees need to trust the data that they're using. Enterprises need to have all the right policies and the governance in place to ensure that employees can responsibly use data but also remove all friction in allowing employees to access relevant data.

Data-leading organizations give their employees full transparency with the use of data and break down all boundaries that exist between departments, business units, geographies, etc. In turn, employees in data-leading organizations feel more accountable for the data they can access and feel personally responsible for that data. Data-leading organizations make it easier for employees to get access to all of the data they need to do their jobs.

Trust tends to be **heavily influenced by regional culture**. Employees of organizations in the Asia/Pacific and Western Europe regions were **most likely** to cite that their organizations provided **visibility to data within a group or a department**.

Asia/Pacific

Organizations in Asia/Pacific demonstrated a high degree of trust toward their colleagues and their organization but a lower level of confidence in people's data skills. This drives governance models that are highly restrictive and inhibit access to data. Data-aware organizations in India said they felt less accountable for the data in their organization despite 31% of respondents having access to all company data. In Japan, one third of organizations give access to department-level data, but only one respondent reported that their employees have access to company-wide data. Respondents in China reported that most employees did not have access to data outside of their department.

Latin America

The lowest scores regarding trust and accountability are found in Latin America. **In Mexico, only 11% of respondents said they have visibility into company-wide data, and Mexican organizations gave the third-lowest trust scores of all respondents.** Brazil had the lowest rating of all respondents' countries. Similar to respondents in the Asia/Pacific region, a connection can be made between this low level of trust and a lack of personal accountability for how data is used. On the whole, Latin America (followed closely by Asia/Pacific) has the greatest opportunity to benefit from establishing guidelines around data use and building a sense of accountability around data.

North America

The United States and Canada had the highest scores for this trend, with both countries performing above average and consistent performance between countries. **In data-leading organizations in North America, 70% more respondents said that stakeholders made it easy to access the data they need to do their jobs than in data-aware organizations.** This was stronger than in any other region and may largely be owed to earlier and deeper exposure to self-service models of business intelligence that require a balance between empowerment and control to be successful.

Western Europe

Employees of organizations in Western Europe (as well as in Asia/Pacific) cited that their organizations were most likely to provide visibility to data within a group or a department. While **all respondents in the United Kingdom, France, and Germany rated their organizations above average in trust and accountability,** the highest ratings came from companies in France.

3. Data-Driven Organizations Encourage Data Exploration and Curiosity

Having tools, technology, and access to data doesn't directly lead to an organization becoming more data-driven. People have to have a data-oriented mindset. Employees of data-leading organizations have a work identity that is rooted in data and are open to experimenting with data. In many interactions with people in organizations with a strong Data Culture, employees often cite that their executives would rather actively encourage experimentation using data and experience failure than take the easier path of not being data-driven.

Organizations with a strong Data Culture allow their employees to experiment, fail, explore, and innovate using data. They expect their employees to bring data to meetings and make decisions based on data instead of on intuition or guesswork. The use of data becomes part of the organization's DNA; its employees take pride in being data-savvy and data is a core part of the organization's goals and priorities.

On average, **73.5% of respondents** in **data-leading companies** across all geographies said that their **decision making was always data-driven**, compared with just 5.7% in data-aware organizations.

Asia/Pacific

Within the region, there was slight variation across respondents' countries. Participants in China expressed the lowest satisfaction within the region with how their organizations use, innovate, and explore with data. **Companies in Japan had slightly above-average scores for encouraging data exploration and curiosity,** which may be due in part to the data mindset in the manufacturing industry: 32% of respondents prioritize kaizen and other lean manufacturing techniques. In India, where 22% of respondents were from the service/technology sector, higher ratings may be related to the tendency to prioritize innovation.

Latin America

Of the five trends outlined in this white paper, Latin America performed the strongest on a data-oriented mindset, contributing to 30% of the region's Data Culture index score. In the region, **83% of respondents said either that data was a "core part of their work identity" or that they were professionally "quite strongly data-driven."** This number was driven in part by data-minded industries. Of Mexico's respondents, 19% were in the services industry and 19% in manufacturing (specifically, 15% from process manufacturing), while 38% of Brazil's respondents were from the service/technology sector and 14% from finance.

North America

North America received comparatively average scores for its data-driven approach to work. When it comes to mindset, **there may be value in considering the influence of industry norms and the respective distribution of industries across respondents' countries.** Respondents from Canada pulled heavily from the finance and government/education sectors, where globally only 13.2% and 10.3% of respective respondents said data was a "core part of my work identity." U.S. respondents saw a prominence of responses from the service/technology sector, where globally 24.1% agreed with the above statement and 27% were categorized as data-leading. These figures can be compared with other global industries: oil/gas (24.2%), retail/wholesale (18.5%), manufacturing (17.7%), other (17.1%), transportation/communication/utilities (16.8%), and healthcare (12.5%).

Western Europe

Across Germany, France, and the United Kingdom, there was the greatest regional variation in scores around openness and encouragement of data exploration. **Respondents in the United Kingdom, the most widely distributed country with five sectors accounting for 76% of respondents, reported the strongest encouragement to experiment with data.** The average across Germany was in line with the global response, as responses pulled nearly equally from the manufacturing (20%) and finance (18%) sectors — high and low tendencies toward a data mindset may have been offset. France gave the lowest scores across all countries surveyed, pulled down in part by 9% of respondents being from the utilities industry in a country largely dominated by unions.

4. Data-Driven Organizations Break Down Silos and Emphasize Collaboration

Humans are inherently social beings, and interactions enrich our daily lives. Similarly, in the context of Data Culture, organizations in which people communicate and collaborate with data perform better. People share ideas and best practices and build empathy around using data. Employees in data-leading organizations openly give and receive help, not only within teams but across groups and business units. These organizations are most successful in breaking down silos and creating environments in which everyone is willing and able to share insights and analytics.

Asia/Pacific

Nearly all participating organizations from India, **92% of respondents, said they held in-person conferences on the topics of data or analytics — up slightly from the 87% of respondents in India who hosted employee conferences virtually.** In China, it is also standard practice to host internal data conferences, with **93% of organizations having hosted them in person and only 71% hosting virtually.** There is less engagement with community-building programs in Japan: 65% of respondents had in-person conferences, while 51% held virtual conferences and 54% held virtual user groups.

Latin America

Globally, there is optimism that colleagues will assist other colleagues with data-related questions: 85% of organizations said they were confident or extremely confident that they could rely on colleagues to answer data-related questions. Latin America was even more optimistic, with **98% of respondents from Brazil and 94% of respondents in Mexico expressing this same degree of confidence.** (Nearly half of Brazil's respondents, 48% of them, were extremely confident they could rely on colleagues.) In Latin America, this informal network of support is supplemented with a focus on company-run analytics office-hours programs: 89% of Latin American organizations provide this service to their employees.

North America

In recent years there has been a focus on creating community-building programs around data and analytics. North America was largely in line with the global pattern that **organizations with strong Data Cultures made investments in five or more community-building activities — while organizations that hadn't yet transformed their Data Cultures were supporting two or fewer.** In the United States, there was a preference for internal forums on the topic of data or analytics, while Canada preferred user groups or community practice sessions.

Western Europe

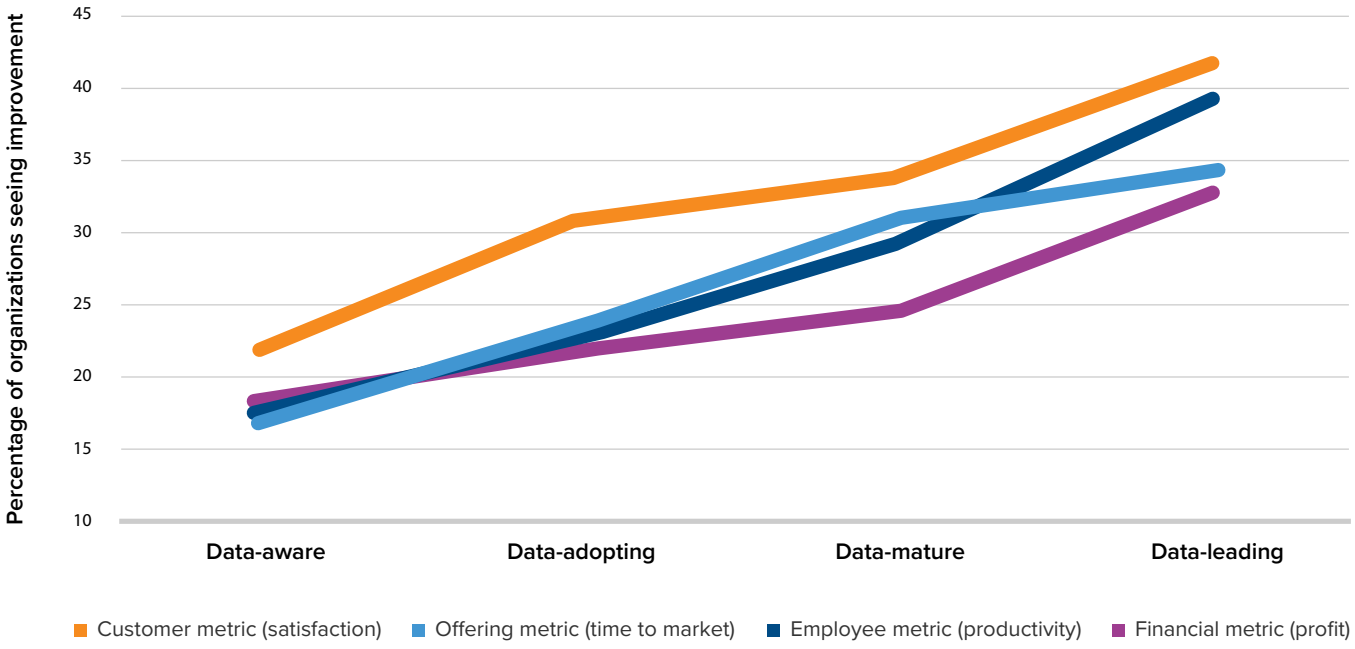
In Western Europe, **82% of respondents in data-leading companies were extremely confident that they could get help from their colleagues, compared with only 13% in data-adopting companies.** This is due in part to a heavy emphasis on data and analytics help desk and office-hours programs. In both France and Germany, there was more support for these types of programs than any other community-enablement program. Additionally, in the United Kingdom, three quarters of respondents regularly held user-group or community practice sessions on an ongoing basis.

5. Data-Driven Organizations Are Committed to Realizing Value from Data

As stated in the IDC InfoBrief, we found an incremental correlation between organizations' placement within the Data Culture index and their performance on a set of standard business metrics **(Figure 6)**.

FIGURE 6

Data Culture Provides Rich Dividends



n = 1,100, Source: IDC, 2021

Most organizations want to be more data-driven in their decision making, but the ones that succeed are those in which leaders commit to making the investments they need to realize their goals. These commitments span the gamut of people, processes, and technology that is required for deploying and adopting data and analytics at scale.

One of the most powerful influencers of Data Culture is executive leadership. Organizations that are led by executives who understand the importance of data and who use data themselves in their day-to-day activities are able to accelerate their path toward becoming data leaders. This level of commitment is critical to creating a strong Data Culture within an organization.

On average, across geographies, there was a **46.2% difference** between data-leading and data-aware organizations with respect to **treating data as an asset** and **recognizing the value it delivered**.

Executives in data-leading companies are **eight times more likely** to **actively use data themselves** in their work compared with data-aware companies.

For countries with lower than average scores regarding data investments, low data literacy scores can generally be observed, **demonstrating an analogous relationship between investments to realizing the value of data and data literacy.**

Asia/Pacific

This region reported greater variation across participating countries. Respondents from China **were more likely than any other country to have a chief data officer or a chief analytics officer (CDO/CAO), with 57% — 14 percentage points higher than any other country.** Of India's respondents, 38% had a CDO or CAO, but 18% of respondents said that a senior manager was responsible for the organization's data strategy. This was second only to Japan, with 28% of respondents reporting a similar structure. Furthermore, Japan was the only country to have a sizable number of organizations say there was a lack of data leadership — over a tenth of organizations indicated there was no clear person responsible for data. It is, therefore, not surprising that 30% of Japanese respondents said they were "unsure of their data's value," which is by far the most of any country surveyed.

Latin America

In Brazil, **40% of respondents identified someone in the C-suite as the senior-most person responsible for analytics, compared with 44% of Mexico's respondents.** Interestingly, organizations in Mexico were as likely to have their senior analytics leader report to the COO as to the CEO — a behavior seen in one other country: France. In Mexico, respondents were mostly likely to think of themselves as possessing a strong data identity, revealing a gap between the desire and attempt by knowledge workers to get value from data and the lack of prioritization from leadership. This gap presents leaders with an opportunity to invest in aligning data sources to strategic business objectives.

North America

The United States scored poorly, significantly below average, regarding companies' commitment to realizing value from data; 30% of U.S. organizations had a CDO or CAO. Meanwhile, respondents from Canada reported above-average commitment scores, but contextually, these companies have interesting reporting structures: **A quarter of organizations from Canada had a CDO or CAO, and yet these organizations still demonstrated a strong investment in realizing value from data.**

Western Europe

Again, there are wide variances in demonstrated commitment to realizing value from data within this region. In the United Kingdom, 38% of organizations had a CDO or CAO. In Germany, 32% of organizations had a designated CDO or CAO, while **16% of organizations said multiple people were primarily responsible for data — a response rarely seen in other countries.** In France, organizations were more likely to report to a director or below (36%) than to a CDO or CAO (31%). This was in line with other data from France, where 41% of organizations said that they "treat data as an asset, but aren't sure of data's value."

Future Outlook

In this paper, we have described Data Culture and explained its benefits, but the most pressing question is: What can an enterprise do to build a Data Culture? Or, if it already has some Data Culture characteristics, what can it do to move into the next phase of maturity?

Identify Gaps in Your Data Culture

Recognize that changing behavior goes beyond just deploying technology; it requires actions to change the mindset of your organization toward data. For example, if your organization is very siloed, is it possible to begin sharing and collaborating around data? Or if you do, do you need to set a new expectation for bringing data into meetings and important conversations? If possible, identify people in departments whom you consider data-driven and make them "data champions" so they can evangelize the use of data among their groups and demonstrate best practices.

Benefit from Incremental Investments in Data Culture

Do not be intimidated by the concept of Data Culture. Wherever your organization's starting point in the journey to becoming data-driven, each step along the way will deliver incremental benefits.

For example, survey data showed that organizations saw the biggest improvement in financial, customer, and product metrics when they moved from the data-aware stage to the data-adopting stage. Moving from left to right on the Data Culture maturity scale gives you benefits you can build upon.

Make Simple Changes to Mindset

Measures to improve Data Culture are not always big financial commitments that require you to build a business case or ask for investment. For example, simple steps include creating opportunities to share ideas and best practices, having an advanced analytics team offer office hours for people to learn to use data more effectively, or making data skills something you look for in new hires regardless of their role.

Executives Have a Big Impact

One of the biggest influencers of Data Culture is executive sponsorship and involvement. When leaders use data in their communications and their decision making, it sets the tone for the rest of the organization. Even companies that have been around for decades can transform themselves to become more data-driven by committing to making the right investments — both monetary investments and investments in time and energy.

Look for New Metrics to Measure Improvement

Not all improvements can be measured in terms of financial benefits. An organization may take a few years to realize a net-positive return on investment, especially if significant upgrades were needed on the technology front, but often the biggest benefits come from better customer and/or employee experiences, more offering differentiation, and being able to be resilient in the face of massive disruption.

Conclusion

Data Culture is composed of behaviors and beliefs around data that permeate how an organization operates. When people across an organization are empowered with data, they can make better decisions that lead to valuable business outcomes.

As this research shows, this impact is not limited to one industry or region. On a global scale, organizations with strong Data Cultures see benefits such as increased collaboration, data exploration and innovation, and measurable value. Strong Data Cultures aren't formed overnight; leaders who take incremental steps toward fostering a Data Culture will see monumental impact over time.

About the Analyst

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Chandana Gopal is Research Director for IDC's Future of Intelligence market research and advisory practice. Ms. Gopal's core research coverage includes factors that influence enterprise intelligence such as technologies such as artificial intelligence, business intelligence, and data intelligence as well as cultural elements such as data literacy and knowledge sharing. Based on her background in integration and analytics, Ms. Gopal's research also includes a particular emphasis on how organizations can build enterprise intelligence and use it as a competitive differentiator and growth accelerator.

More about Chanda Gopal

Message from the Sponsor

Tableau is uniquely positioned to help leaders build data-driven organizations with our powerful platform, our unparalleled customer community, and our **proven methodology to build a Data Culture** with actionable steps you can take to start seeing business value from your investments.

The Data Culture Playbook is for leaders who want to create more value by maturing organization-wide data usage. Learn how to build the foundational behaviors and mindsets of a Data Culture, starting with four key focus areas:

- Align leadership metrics to business priorities
- Build data sources to address critical decision points
- Grow value with specific use cases
- Promote widespread data discovery

Unlock the potential of your data—and your people

Data Culture Playbook **Success Stories**

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