



# TRANSFORMING DATA INTO ACTION: THE BUSINESS OUTLOOK FOR DATA GOVERNANCE

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# TRANSFORMING DATA INTO ACTION: THE BUSINESS OUTLOOK FOR DATA GOVERNANCE

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## About this report

As businesses generate and manage vast amounts of data, companies have more opportunities to gather data, incorporate insights into business strategy and continuously expand access to data across the organisation. Doing so effectively—leveraging data for strategic objectives—is often easier said than done, however. This report, *Transforming data into action: the business outlook for data governance*, explores the business contributions of data governance at organisations globally and across industries, the challenges faced in creating useful data governance policies and the opportunities to improve such programmes.

This report, developed by The Economist Intelligence Unit and sponsored by Collibra, draws on a survey of more than 500 business executives working in North America and Europe in the financial services, healthcare and life sciences, manufacturing, retail and consumer packaged goods, telecommunications and technology industries.

Additionally, we conducted in-depth interviews with corporate leaders and experts in data governance. We would like to thank the following for their insights and contribution to this research:

- **Jennifer Curtiss**, vice president, head of enterprise data governance, American Express
- **Sanjay Saxena**, senior vice president of enterprise data governance and strategy, Northern Trust
- **Abhi Seth**, senior director of data science and analytics, Honeywell Aerospace

Joe Cahill was the author of the report; Michael Hoffmann was the editor.

## **TRANSFORMING DATA INTO ACTION: THE BUSINESS OUTLOOK FOR DATA GOVERNANCE**

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# **Transforming data into action: The business outlook for data governance**

**New digital technologies such as artificial intelligence, big data and the Internet of Things are inspiring more business executives globally to acknowledge the potential strategic value of data. The challenge is converting raw data, in their ever-increasing quantity, into actionable insights and deploying them effectively in both internal and external business operations.**

Capitalising on data requires more than cutting-edge technologies. Companies also need a framework for gathering, validating, protecting and disseminating information. That's where data governance comes in. Less glamorous than the futuristic digital capabilities it supports, data governance involves the essential work of establishing standards and practices for such activities as regulatory compliance, privacy, data quality and access to information. And it involves more than raw numbers: analyses, metrics, algorithms and dashboards are all elements of data governance.

Getting these tasks and outputs right enables employees to harness the data generated by their businesses and have the best chance of translating such data into meaningful strategic insights. Good data governance can help companies create a competitive advantage from their data by revealing untapped market opportunities and highlighting unnecessary expenses.

"Data governance is a foundational concept for any large organisation like ours," says Abhi Seth, senior director of data science and analytics at Honeywell Aerospace, a Phoenix-based manufacturer with nearly \$15bn in annual revenue.

Although many companies have started to develop data governance programmes, new research from The Economist Intelligence Unit reveals that for most companies this is an untapped opportunity to advance business strategy. Our survey of 500 senior executives spanning multiple industries in Europe and North America shows that nearly all business executives consider data essential to meeting their company's strategic challenges.

But many survey respondents say their organisation's approach to data governance emphasises legal and compliance requirements (55%) or privacy concerns (44%) rather than strategic objectives. Accordingly, executives spend most of their time ensuring that their data practices comply with applicable laws and protecting sensitive information from hackers. They spend less time figuring out how to make data useful and accessible to marketers, financial forecasters, plant managers, procurement officers, R&D teams and others who can use this information to develop new products or services, increase sales, cut costs and improve productivity.

The emphasis on compliance and data security is understandable and crucial, considering the introduction of new regulations globally and the reputational and financial damage caused by widely publicised data breaches and lapses in data management at major corporations such as Target, Equifax and Facebook. And this focus is delivering many hoped-for improvements—about two-thirds of respondents say data security or data quality is getting better at their companies.

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**Good data governance can help companies create a competitive advantage from their data by revealing untapped market opportunities and highlighting unnecessary expenses.**

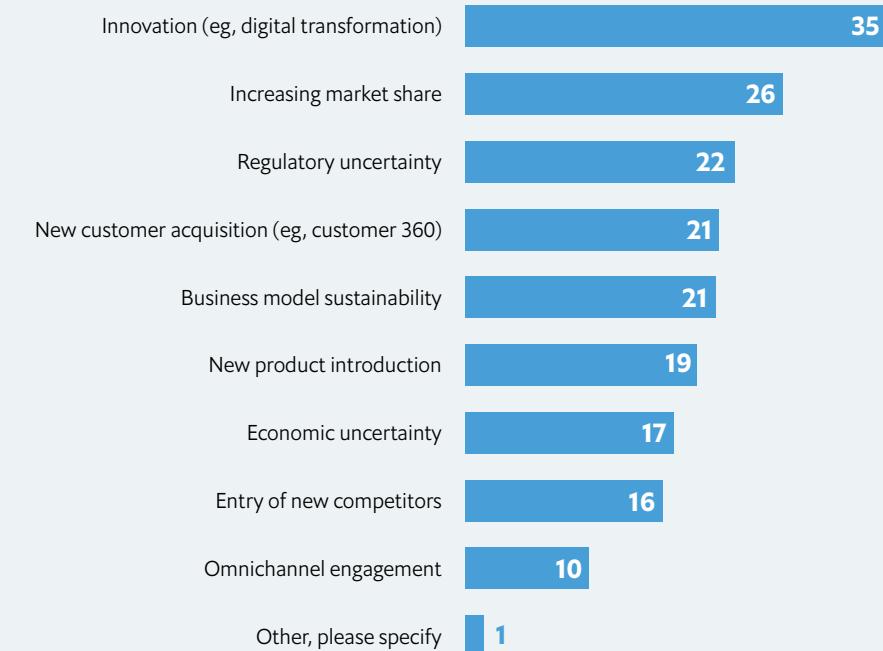
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However, compliance isn't seen as a top strategic challenge, and operational improvements only go so far in helping companies meet their strategic objectives. Tellingly, less than one-fifth of respondents identify innovation or increased revenue as one of the top benefits realised by their organisation's data governance strategy.

**TABLE 1: Top strategic challenges faced by business**

**What are the main strategic challenges your organisation is facing today?**

% of respondents



These findings suggest that the time is ripe to take data governance beyond compliance and protection. A broader approach that includes strategic priorities can help companies discover new opportunities that can drive greater success in the marketplace and a higher return on investment in data governance. "A lot of companies have gotten control of the basic defensive aspects of data governance," says Jennifer Curtiss, head of enterprise data governance at American Express. "Now they can focus on using data governance more offensively to achieve business goals."

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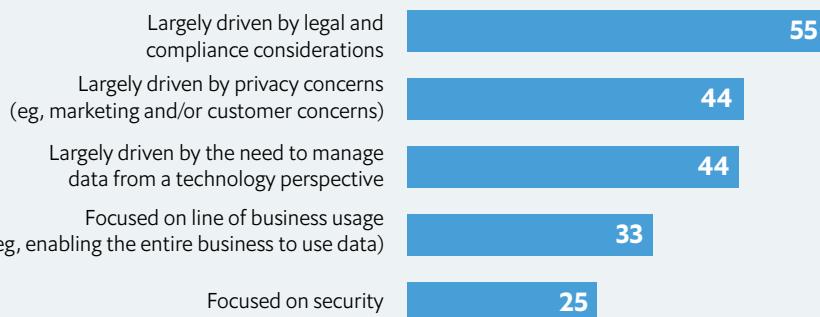
## Today's approach to data governance

**Just how deep does companies' focus on the compliance-related aspects of data governance run? The global priorities of regulatory compliance and data privacy are even more pronounced in some industries. Compliance commands even more attention in the healthcare sector, where 66% call it the primary focus of data governance—not a surprising attitude considering the extensive regulations governing patient privacy. By contrast, only 33% of respondents across industries look to use data in business units, where they could help advance strategy.**

**TABLE 2: Top data governance concerns**

**How would you describe your organisation's overall approach to data governance?**

% of respondents



**"Compliance is the burning need. It's not optional."**

*Sanjay Saxena, senior vice president of enterprise data governance and strategy, Northern Trust*

This intense focus has helped companies implement several best practices related to compliance, privacy and data quality. More than 90% of respondents say their companies have familiarised themselves with data governance technologies, prepared for data-related risks, established the necessary policies and procedures and bolstered data protection and privacy requirements.

"Compliance is the burning need. It's not optional," says Sanjay Saxena, senior vice president of enterprise data governance and strategy at Northern Trust, a global bank that provides wealth management and trust services to clients in more than 90 countries.

That tight focus is also reflected in who develops data governance strategies; many organisations take a siloed approach to data governance. Survey results indicate most businesses leave data governance to technology executives, with little input from other functions. A majority of respondents say the chief information officer, chief data officer or chief information security officer proposes and oversees the implementation of data governance initiatives. IT officials also evaluate the success of data governance programmes at two-thirds of the respondents' companies.

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The survey found some variation among industry groups. At technology companies, CEOs play a bigger role at every stage of the data governance process, while business unit executives are more involved at healthcare companies. The latter finding may reflect a trend in which healthcare technology staffers increasingly report to heads of business units rather than to IT managers.

Honeywell's Mr Seth says companies emphasise compliance and security because executives know the consequences of a data breach can be devastating. When retailer Target lost control of the credit card data of 40m customers, legal settlements and other related expenses totalled an estimated \$300m—not to mention damage to the company's brand.

Data security and privacy are major concerns for Honeywell Aerospace, which manufactures products ranging from cockpit controls and jet engines to wheels and brakes for commercial airlines and military customers worldwide. Still, Mr Seth warns that an overemphasis on liability risk sometimes "drives a lock-down of data", keeping the information away from people who could use it to create value.

Indeed, too much of a focus on managing risk may discourage businesses from taking bets on new opportunities. A recent Gartner report describes enterprise data management as still in the "reactive stage" but notes that data-driven business roles are expanding and diversifying outside of IT.<sup>1</sup>

However, even in a compliance-led environment, some companies are finding that compliance and strategy can be complementary goals. American Express, the global financial services company, is reaping business benefits from its efforts to comply with the European Union's General Data Protection Regulation (GDPR). The GDPR, which takes effect in May of 2018, requires businesses to locate, verify and secure all data that can identify individual customers. While scouring its systems for information, American Express also comes across useful non-customer data that help marketing teams better understand customer needs. Rather than being simply a regulatory burden, GDPR compliance also has helped American Express "provide differentiated service to our customers", Ms Curtiss says.

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**Indeed, too much of a focus on managing risk may discourage businesses from taking bets on new opportunities.**

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Footnote:

1. Gartner 2018. "Data management is pressed between support for analytics and data governance, risk and compliance." <https://www.gartner.com/doc/3869363/survey-analysis-data-management-pressed>.

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## Good governance grades

**Executives generally appear satisfied with data governance at their companies: Nearly 80% of survey respondents rate their governance programmes good or excellent. Satisfaction levels are highest in North America, where 22% of respondents consider their data governance excellent, compared with 12% in the United Kingdom and Ireland and only 8% in continental Europe. From an industry perspective, about one-quarter of retail and technology executives consider their data governance approach excellent—more than twice the share of respondents in manufacturing and healthcare.**

Perhaps the process of preparing for the GDPR has opened European executives' eyes to data governance challenges still unnoticed elsewhere. Companies in the European Union have spent the past few years preparing to comply with the economic bloc's sweeping privacy mandate, which establishes strict, uniform data governance requirements—backed by significant penalties—for all organisations that manage the data of EU citizens.

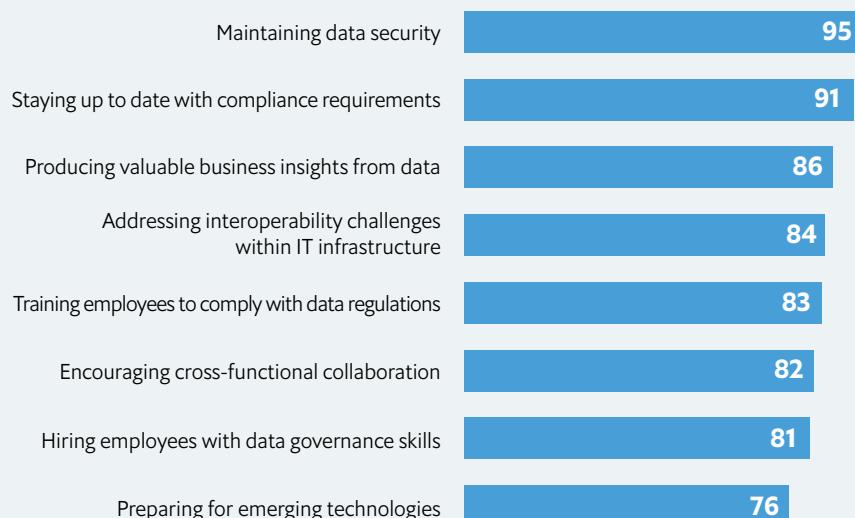
However, this satisfaction clearly relates to companies' main goals, compliance and security. Nearly all businesses say they're good at data security, for example, and well over half say the same of their ability to comply with regulations. The emphasis on security is still well-warranted. Using data from a global survey of consumers, the Edelman 2018 Trust Barometer notes that the number one trust-building mandate for business is to safeguard privacy.<sup>2</sup>

**Satisfaction clearly relates to companies' main goals, compliance and security.**

**TABLE 3: Data governance capabilities**

**How successful is your organisation at each of the following data governance practices?**

% of respondents choosing "very successful" or "successful"



Footnote:

2. Edelman 2018. Trust Barometer. "The State of Business". [http://cms.edelman.com/sites/default/files/2018-02/2018\\_Edelman\\_Trust\\_Barometer\\_State\\_of\\_Business.pdf](http://cms.edelman.com/sites/default/files/2018-02/2018_Edelman_Trust_Barometer_State_of_Business.pdf)

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It's notable, therefore, that more than three-quarters also are confident in their companies' ability to glean valuable insights from data, and large majorities say they successfully foster cross-functional collaboration. These findings suggest that many companies might be well-prepared to pivot their data governance programmes to a more strategic focus.

The survey offers some additional hope. Most companies assess data governance performance through the lens of compliance—and data quality. Accuracy, which is crucial to using data effectively, is the top metric for 51% of respondents, followed by regulatory compliance at 49%. Not surprisingly, compliance concerns rank highest for executives in legal and finance functions, where rules and regulations govern so many activities.

**TABLE 4: Measuring success of data governance**

## How, if at all, does your organisation measure the success of its approach to data governance?

% of respondents



That said, only 40% of respondents currently evaluate their data governance programmes based overtly on contributions to strategic goals.

While Honeywell closely monitors compliance with internal data quality requirements, Mr Seth puts more stock in "soft" indicators of data awareness throughout the company. He's particularly interested in the types of questions he gets from people in the field. Initially, line managers are most interested in backward-looking, quantitative operational data, he says. When they start asking higher-level questions about using data to solve business problems and identify new opportunities, he knows they "are starting to open their eyes to data" as a driver of value.

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## Data governance on offense

**At American Express, Ms Curtiss has set a “goal to align data governance with the goals of the business”. She’s steering a data governance programme that was initially focused on compliance toward an active role in driving strategic success and bottom-line results. Her team of 30 data professionals uses a deep, centralised data platform that makes high-quality data readily accessible to American Express staffers around the world. The data platform reduces costs and boosts productivity by automating and accelerating data-related activities once performed by separate lines of business throughout the company. Another early benefit is completing data quality and preparation work centrally, which enables data scientists to spend more time generating valuable insights for the business.**

Mr Saxena has overseen a similar evolutionary shift since joining Northern Trust in 2016. With a mandate from senior leadership, he’s reorienting governance around strategic objectives and integrating it into front-line business units.

“Data governance at Northern Trust is becoming more business-centric,” Mr Saxena says.

As manager of trillions of dollars in assets for wealthy individuals and large institutions, Northern Trust holds vast troves of sensitive and potentially valuable information. Well-developed data governance protocols help safeguard these data while also supporting new revenue-generating services. Effective data management can provide richer, timelier and more reliable insights regarding investment performance, trading patterns, market trends and other critical factors tailored to individual client needs.

“In our industry, data-as-a-service is really catching on,” Mr Saxena says. “Data governance is helping us build those offerings.”

At Honeywell Aerospace, strategically integrated data governance is generating value across the company. One example is a new pricing platform that gives pricing analysts instantaneous access to relevant data from multiple internal and external sources such as customers or vendors. Information that previously took weeks to gather is now automatically and continuously updated in a database accessible at a keystroke. These changes allow analysts to price more precisely and respond more quickly when customers ask for quotes.

### Four keys to strategic data governance

Mr Seth of Honeywell Aerospace outlines four key elements of a data governance programme that supports business objectives. The compliance and security element is just one of the four.

**Data gathering and availability.** Mr Seth’s team works with business units to identify important information about markets and internal operations, locate sources of those data and translate the information into meaningful formats for decision-makers. For example, the company has created a data dictionary that helps people across business units understand different types of data.

**Data accuracy.** A data-driven strategy is only as good as the information it relies on. Honeywell ensures the accuracy of data through real-time monitoring and quality checks. These automated systems ensure that workers are fully and accurately recording data that others throughout the company can rely on for decision-making.

**Data access.** Honeywell determines who needs what data and ensures their accessibility to anyone with legitimate need. For example, policies encouraging access to data across functional boundaries have helped turn information from the company’s repair and service operations into valuable insights for developers of new predictive maintenance services. The data illustrate how often various mechanical components or parts are likely to require service or replacement.

**Compliance, security and privacy.** Regulatory compliance, data security and privacy protection are interrelated, critical functions of any data governance regime. As a US defence contractor, Honeywell Aerospace must protect sensitive government information. To prevent leaks, Mr Seth’s team of 35 data scientists, data engineers and data architects created a system of tiered data rights that gives different employees varying degrees of information access.

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Advanced analytics also drive efficiency gains at Honeywell factories. Detailed, timely production data help managers improve yields, reduce downtime and boost output. Rising productivity from new data-driven insights can expand profit margins and enable manufacturers like Honeywell to meet growing demand without investing capital to build new production lines.

"Better data quality is generating better financial performance as well as operational excellence," Mr Seth says. And, of course, it's better data governance that underlies that better quality.

Data governance will take on even greater strategic importance as new technologies create new possibilities—and vastly larger amounts of data. It's very hopeful news that large majorities of business executives expect artificial intelligence, blockchain, cloud computing and IoT to improve their data governance capabilities.

**TABLE 5: Expectations for emerging technologies**

**How do you expect each of the following emerging technologies and/or trends to impact the quality of your organisation's approach to data governance (ie, its ability to manage organisational data, information and analytics assets to ensure compliance, integrity and privacy)?**

% of respondents choosing "somewhat" or "significant" positive impact



Such improvement is already happening at Northern Trust, which recently joined forces with a large technology company to develop a record-keeping system based on blockchain for the bank's private equity clients. The digital ledger provides a secure, authenticated and automated record of limited partner investments and other transactions that previously were tracked manually, saving private equity firms' money and improving their security.

Ms Curtiss of American Express also sees "huge potential for those technologies". She says artificial intelligence and machine learning are generating meaningful productivity gains in activities such as data mapping, an essential but laborious process of matching up bits of data from various sources and assigning them to appropriate categories. Automated systems complete these chores faster than humans and just as accurately, she says.

"We're using AI and machine learning to analyse data more quickly and produce higher quality outcomes," she says. "What used to take months now takes hours."

**"Better data quality is generating better financial performance as well as operational excellence."**

*Abhi Seth, senior director of data science and analytics, Honeywell Aerospace*

**"We're using AI and machine learning to produce higher quality data more quickly...What used to take months now takes hours."**

*Jennifer Curtiss, vice president, head of enterprise data governance, American Express*

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## Clearing barriers to better data governance

While companies are already seizing some opportunities to combine data governance and business strategy (and seeing many more going forward), they still face several obstacles to implementing such data governance programmes. Data security challenges, an overwhelming amount of data and changing regulatory or compliance trends loom largest for survey respondents. Survey responses indicate that compliance poses the most frequent challenge in the heavily regulated finance sector, where banks navigate a maze of rules ranging from fair credit reporting standards to anti-money-laundering regulations. Banks with European operations also will bear heavy compliance burdens under the GDPR.

TABLE 6: Barriers to data governance

What, if any, are your organisation's biggest barriers to implementing effective data governance?

% of respondents



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To comply with the GDPR, Northern Trust has undertaken a company-wide effort to track down all customer data and make sure these are secure and readily accessible to customers and regulators. "We have mapped out all of the sensitive data in our high-risk systems," Mr Saxena says. "That was a massive effort" for his 14-member data governance team and numerous others throughout the organisation.

But all these specific challenges pale before the challenge of culture change. Mr Saxena says his greatest challenge to creating a more nuanced data governance strategy was convincing some managers that Northern Trust needed an integrated data governance model that engages all workers, not just IT staff, in every business unit. "That was a tough uphill climb for us," he says. He met the challenge by forming a data governance committee comprising both technology executives and business leaders and embedding a data steward in each business unit to oversee its data practices.

Mr Seth says older companies in traditional industries that are looking to build a strong, value-oriented data governance programme face a similar shift. The notion of data as an asset was a novel concept at Honeywell, with its century-long history in the nuts-and-bolts world of manufacturing. Time and effort are required to convince people that information should be treated with the same care as sophisticated avionics equipment.

"That transformation doesn't happen overnight", says Mr Seth, who calls himself "an evangelist for data governance" around the company. Fortunately, an influential believer endorses his message.

"The data governance initiative is really driven by our CEO, Tim Mahoney," Mr Seth says. He adds that Mr Mahoney understands the strategic value of data and backs Mr Seth's efforts to develop those assets through data governance. His support fosters buy-in and co-operation throughout the organisation, Mr Seth says.

Even more persuasive is proof that data governance solves business problems, advances strategy and boosts the bottom line. As success stories accumulate, buy-in accelerates. When people see tangible business benefits, they are more likely to support data governance policies that make information more accurate, useful and accessible.

"Once you show value, using data throughout the business becomes a lot easier," Mr Seth says.

**As success stories accumulate, buy-in accelerates. When people see tangible business benefits, they are more likely to support data governance policies that make information more accurate, useful and accessible.**

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### **A new day for data governance**

**Many companies have yet to overcome these barriers and tap the full strategic potential of data governance. But more and more organisations are making the connection between data governance and strategy as executives look everywhere for business insights that will improve performance and as the amount of data available steadily increases. Senior leaders at companies like American Express, Northern Trust and Honeywell Aerospace understand that data governance focused on business objectives can help drive growth strategy, result in improvements in productivity and contribute to success in the marketplace.**

Companies that want to make the same leap would do well to build a data governance programme incorporating all the key elements of data gathering and availability, data accuracy and data access onto the foundation of compliance and security. Communication and leadership support will help drive the culture change many companies will need to make.

And as data governance moves up the C-suite agenda and out into business units, executives leading these efforts, like many CIOs and CTOs before them, will move from being overseers of a support function to taking on a central role in corporate strategy. Already, Mr Seth says, “I get pulled into a lot of meetings in our executive conference room.” Both data and line of business executives globally will spend more time in similar conference rooms as more organisations begin to appreciate the strategic value of data governance. ■

# TRANSFORMING DATA INTO ACTION: THE BUSINESS OUTLOOK FOR DATA GOVERNANCE

## Appendix 1: Tables

**TABLE 1: Top strategic challenges faced by business**

**What are the main strategic challenges your organisation is facing today?**

% of respondents

Innovation (eg, digital transformation)	35
Increasing market share	26
Regulatory uncertainty	22
New customer acquisition (eg, customer 360)	21
Business model sustainability	21
New product introduction	19
Economic uncertainty	17
Entry of new competitors	16
Omnichannel engagement	10
Other, please specify	1
Don't know	

**TABLE 2: Top data governance concerns**

**How would you describe your organisation's overall approach to data governance?**

% of respondents

Largely driven by legal and compliance considerations	55
Largely driven by privacy concerns (eg, marketing and/or customer concerns)	44
Largely driven by the need to manage data from a technology perspective	44
Focused on line of business usage (eg, enabling the entire business to use data)	33
Focused on security	25
Other, please specify	
Don't know	

**TABLE 3: Data governance capabilities**

**How successful is your organisation at each of the following data governance practices?**

% of respondents choosing "very successful" or "successful"

Maintaining data security	95
Staying up to date with compliance requirements	91
Producing valuable business insights from data	86
Addressing interoperability challenges within IT infrastructure	84
Training employees to comply with data regulations	83
Encouraging cross-functional collaboration	82
Hiring employees with data governance skills	81
Preparing for emerging technologies (eg, artificial intelligence, blockchain, IoT)	76

**TABLE 4: Measuring success of data governance**

**How, if at all, does your organisation measure the success of its approach to data governance?**

% of respondents

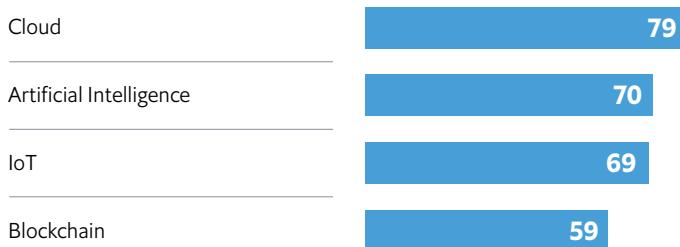
Accuracy of data	51
Compliance	49
Contribution to strategic goals	40
Availability of data for internal needs	39
Improved employee understanding of how data is accessed and used	34
Achieving expected ROI on direct investments in data governance	32
We don't have established metrics to assess data governance	3
No metrics have been in use long enough to assess	3
Don't know	1
Other, please specify	

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**TABLE 5: Expectations for emerging technologies**

**How do you expect each of the following emerging technologies and/or trends to impact the quality of your organisation's approach to data governance (ie, its ability to manage organisational data, information and analytics assets to ensure compliance, integrity and privacy)?**

*% of respondents choosing "somewhat" or "significant" positive impact*



**TABLE 6: Barriers to data governance**

**What, if any, are your organisation's biggest barriers to implementing effective data governance?**

*% of respondents*



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