THE ASG TECHNOLOGIES 2020 SURVEY REPORT

Barriers to Success with Information-Powered Business:
Bad Data Burdens the Modern Enterprise

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OVERVIEW

Data drives business forward. It is the base and the evidence for regulatory compliance. It points the way to new business opportunities. The importance of data is understood – yet it's not clear that businesses are getting full value from their data investment. If organizations recognize the opportunity data provides, why have so few realized it?

ASG Technologies conducted a survey of 150 IT professionals from organizations with 500+ employees to understand what barriers have prevented data from living up to its promise. The report's findings indicate that people on the frontlines of data lack the resources – both tools and skills – necessary to leverage data they can trust. Read on to learn how this challenge has hindered enterprises' ability to realize full value from data and what enterprises can do to solve it.

BAD DATA IS COSTING THE MODERN ENTERPRISE

Sixty-three percent of respondents believe inaccurate, outdated or otherwise "bad" data has been used to fuel business decisions in their organizations. In fact, only 6% were able to say with absolute certainty that bad data has not been used.

Of the respondents who believe their organization has used bad data to fuel business decisions, 64% say it added costs. Other repercussions included having to restart a project (57%), missing a business opportunity (53%), wasting time on a project (43%), getting fined due to lack of compliance (37%), losing funding on a project (33%) and reversing a prior business decision (29%). Organizations cannot afford these inefficiencies – financially or procedurally – when competing in any market.

WHO TOOK THIS SURVEY?

- IT Management
- Project Managers
- Business Analysts
- Network Designers/ Engineers/Managers
- Database Administrators
- Data Architects
- Application Managers

63% of respondents believe "bad" data has been used to fuel business decisions in their organization.
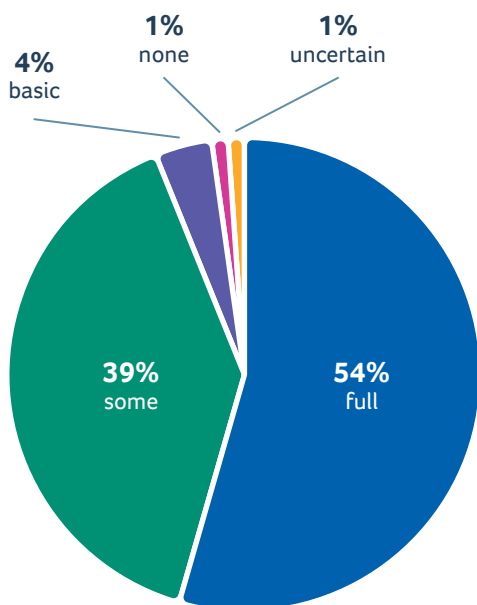
THE ASG TECHNOLOGIES 2020 SURVEY REPORT
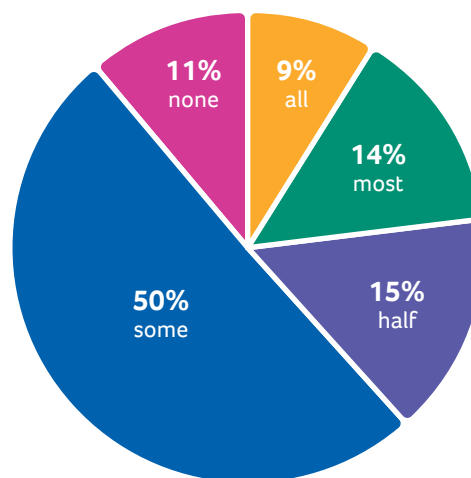Barriers to Success with Information-Powered Business:
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HOW CLOSE ARE ORGANIZATIONS TO REALIZING THE FULL VALUE OF DATA?

4%
basic

1%
none

1%
uncertain

39%
some

54%
full

PREVALENCE OF "DARK DATA" IN THE ENTERPRISE

11%
none

9%
all

14%
most

50%
some

15%
half

Even if enterprises haven't made costly or harmful decisions due to data, they are still falling short of their potential if they aren't fully leveraging their data. **Nearly half (45%) of respondents say their organization has *not* realized the full value of data**.

In fact, there seems to be a prevalence of "dark data" – or data that is collected but not used to glean insights for decision-making. Thirty-eight percent of respondents believe a significant portion – half, most or all – of their organization's data is "dark." Another 50% say at least some of their organization's data is dark. This widespread existence of dark data, even at varying levels, shows that organizations' ability to collect data has outpaced their ability to analyze and leverage it.
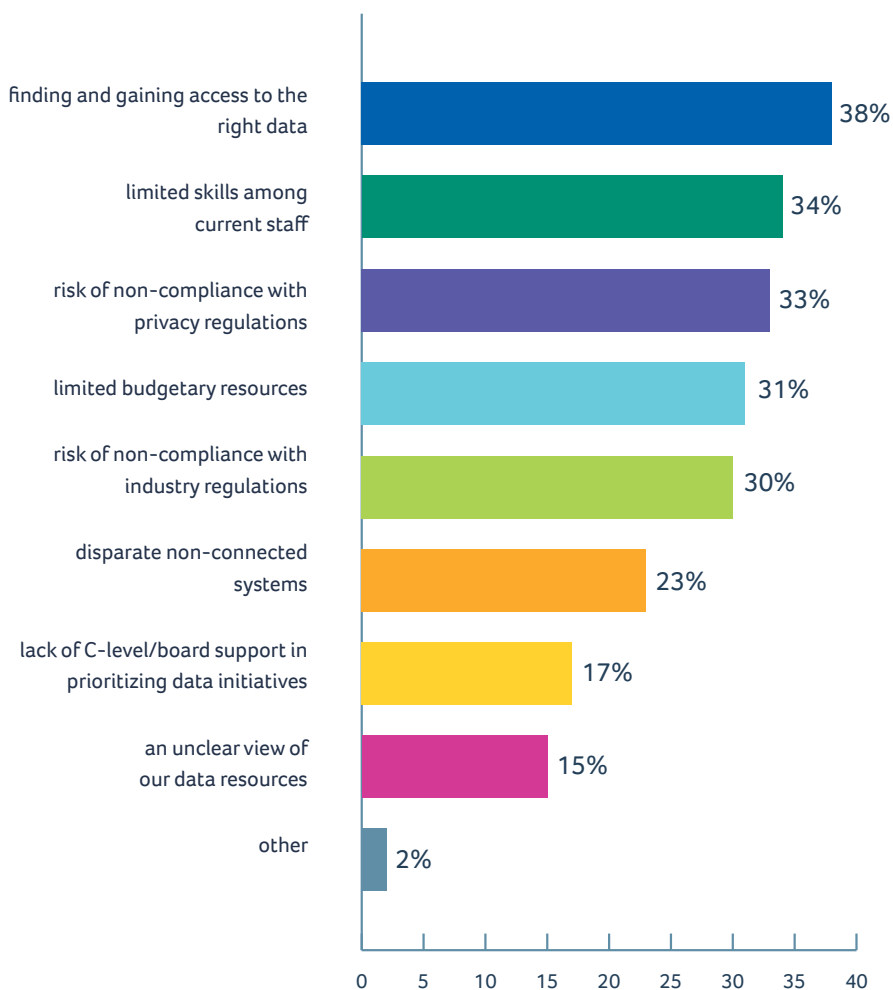
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BARRIERS TO REALIZING THE FULL VALUE OF DATA

According to respondents, the top barrier facing organizations is finding and gaining access to the right data. This finding points to the vital importance of creating and automating an inventory of data assets. Even more interestingly, every respondent who selected this as a barrier also selected risk of non-compliance with privacy regulations — underscoring how not being able to find and access the right data can cause a ripple effect of data management issues. As organizations do more to identify these barriers, they must look both externally and internally at their processes, talent and tools.
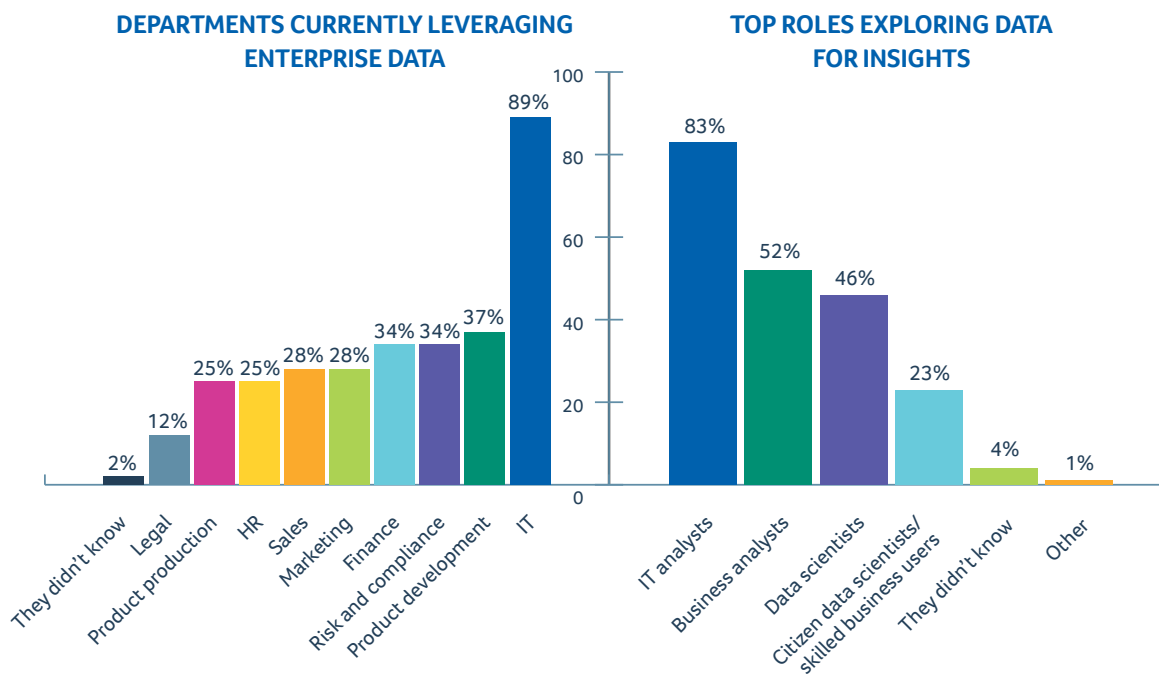
TOP BARRIERS

Barrier	Percentage
finding and gaining access to the right data	38%
limited skills among current staff	34%
risk of non-compliance with privacy regulations	33%
limited budgetary resources	31%
risk of non-compliance with industry regulations	30%
disparate non-connected systems	23%
lack of C-level/board support in prioritizing data initiatives	17%
an unclear view of our data resources	15%
other	2%

DELAYED DEMOCRATIZATION AND SKILLS SHORTAGE

Data democratization and data literacy are two keys to unlocking data value – but they are two areas where enterprises aren't making progress fast enough. Despite the hype, data democratization is clearly still a work-in-progress, as IT is still by *far* the main department leveraging enterprise data. The goal of democratization is to give every user access to data so they can make decisions, remove bottlenecks and derive more value. IT, while absolutely critical, doesn't directly generate value – rather, it comes from business operations and decisions. Yet, IT roles are still the main people exploring data for insights. Less than one-quarter (23%) of respondents say citizen data scientists or business users explore data for insights at their organizations. This burden on IT suggests a data impedance – a barrier between data management and business use of data.

DEPARTMENTS CURRENTLY LEVERAGING ENTERPRISE DATA

Department	%
They didn't know	2%
Legal	12%
Product production	25%
HR	25%
Sales	28%
Marketing	28%
Finance	34%
Risk and compliance	34%
Product development	37%
IT	89%

TOP ROLES EXPLORING DATA FOR INSIGHTS

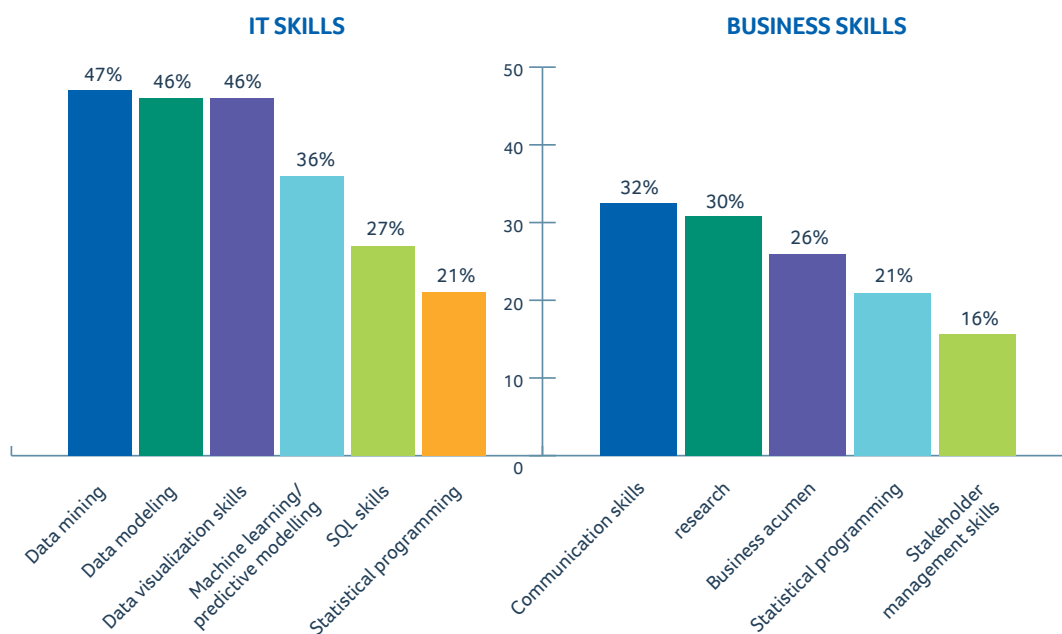| Role	%
IT analysts	83%
Business analysts	52%
Data scientists	46%
Citizen data scientists/skilled business users	23%
They didn't know	4%
Other	1%

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Data democratization and realizing the full value of data may be delayed by a skills shortage. Just over one-third (34%) of respondents say limited skills among current staff prevent their organization from realizing value from data. In fact, of the respondents who struggle finding and gaining access to the right data, 81% are also hindered by limited skills among staff.

Data literacy is a major barrier confronting organizations. Thirty-nine percent of respondents believe only half or less of their team has the skills needed to make use of data. While many of these skills pertain to data management, such as data mining (47%) and data modeling (46%), several relate to business decision-making. About one-quarter (26%) wish their team had more business acumen to improve its data use. Others wish their team had better communication skills (32%) and stakeholder management skills (16%).

26% of respondents wish their team had more business acumen to improve its data use.

IT SKILLS

Skill	%
Data mining	47%
Data modeling	46%
Data visualization skills	46%
Machine learning/predictive modelling	36%
SQL skills	27%
Statistical programming	21%

BUSINESS SKILLS

Skill	%
Communication skills	32%
research	30%
Business acumen	26%
Statistical programming	21%
Stakeholder management skills	16%

## LACKING THE MOST EFFECTIVE TOOLS AND PROCESSES

Enterprise employees believe they have the right tools to leverage data, but they still lack the processes to use the tools successfully. For instance, 89% of respondents say their organization has the tools it needs to manage and glean insights from data, and 88% say they personally have the tools they need to do so.

TOP TOOLS USED TO MANAGE OR GLEAN INSIGHTS FROM DATA

- 53% use line of business solutions

- 53% use data science platforms

- 51% use data governance tools

- 50% use data catalog/data discovery

- 45% use self-service BI/data dashboards

- 44% use ERP systems

Despite this consensus, 34% of respondents say they spend 16-20+ hours per week manually finding, managing and gleaning insights from data each week. This excess of manual work indicates users do not have the tools they need in today's increasingly digital, automated IT ecosystem.

TIME SPENT MANUALLY FINDING AND MANAGING DATA
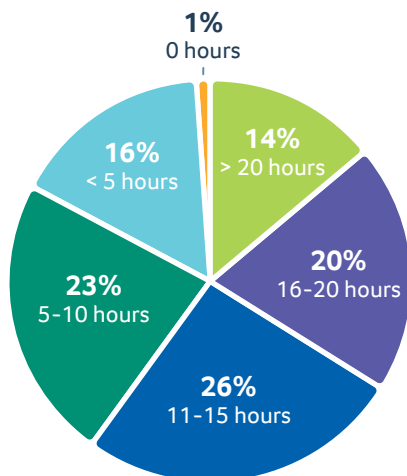
Pie chart: 1% 0 hours; 14% > 20 hours; 20% 16-20 hours; 26% 11-15 hours; 23% 5-10 hours; 16% < 5 hours

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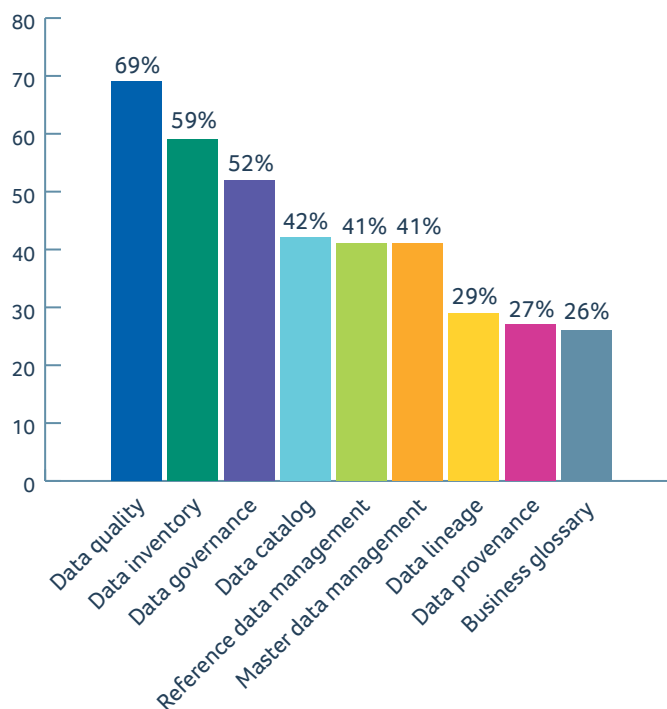Bad Data Burdens the Modern Enterprise

In fact, more than half (57%) of respondents struggle to find the best data available for a project. Many also struggle to trust (48%), access (45%) and understand (43%) the data they are using to do their jobs. These capabilities are non-negotiable when functioning as a data-driven organization and realizing full value from data.

TOP CHALLENGES WHEN USING DATA ON THE JOB

- 57% say finding the best data that's available for their project
- 48% say trusting data
- 45% say being able to access data
- 43% say understanding data
- 42% say ensuring you're allowed to use the data and for what purposes
- 4% say they didn't know
- 2% say other

It seems many organizations have implemented basic data management processes and tools, such as data quality (69%) and data inventory (59%), but fewer have matured beyond that. Without a data inventory, four in 10 organizations don't know what data they have. Additionally, only half (52%) of organizations currently practice data governance, which means they don't have data use and modification under control. Less than one-third (29%) currently practice data lineage, which means they don't know enough about their data to trust it. These results show that most enterprises still lack the data intelligence needed to realize full value from their data. They need best practices to govern that data, enable the sharing of data and then derive value from it – knowing it is trustworthy and accessible.

DATA MANAGEMENT TOOLS/ PROCESSES CURRENTLY IN PRACTICE

Data quality 69%
Data inventory 59%
Data governance 52%
Data catalog 42%
Reference data management 41%
Master data management 41%
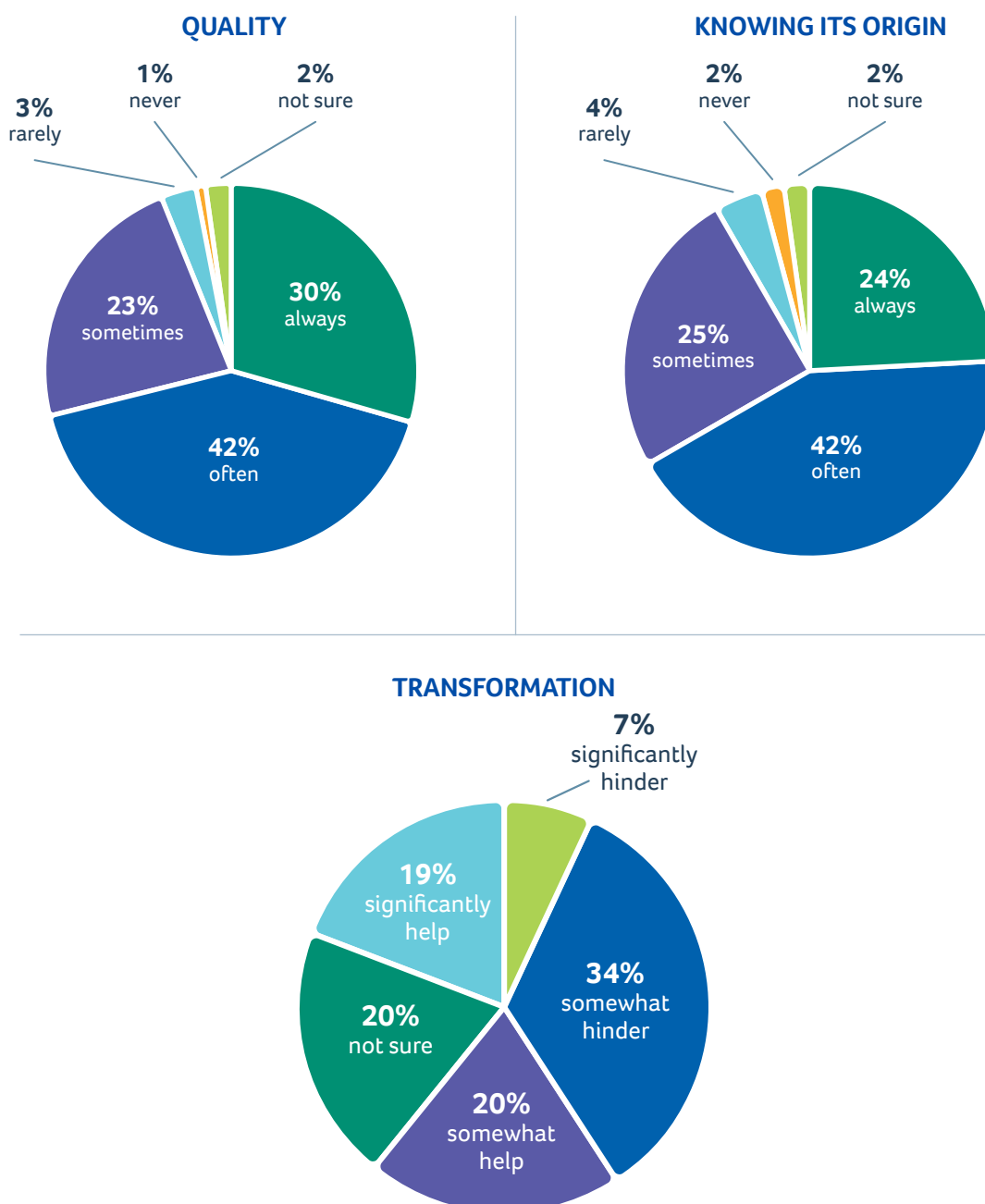Data lineage 29%
Data provenance 27%
Business glossary 26%

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Despite immature data intelligence, most organizations are still trusting their data to run the business, assert compliance and plan for the future. Most respondents say they always or often trust their data in terms of quality (72%), knowing its origin (66%) and transformation (63%). The lack of tools such as data lineage and data provenance – and the fact that 63% of respondents believe their organization uses bad data – may undermine employee' ability to define trust.

QUALITY

3% rarely
1% never
2% not sure
30% always
23% sometimes
42% often

KNOWING ITS ORIGIN

4% rarely
2% never
2% not sure
24% always
25% sometimes
42% often

TRANSFORMATION

7% significantly hinder
19% significantly help
20% not sure
34% somewhat hinder
20% somewhat help

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PLOT TWIST: COMPLIANCE IS NOT A TOP BARRIER

As organizations reflect on what barriers stand between them and their data, many might look to the surge of data regulations in recent years. Yet, only 7% of respondents say data regulations significantly hinder their ability to use data effectively. In fact, 39% of respondents say data regulations somewhat or significantly **help** their team's ability to use data effectively. This result, while somewhat surprising, highlights the benefits of regulations forcing enterprises to modernize their data management, invest in new tools and know what data they possess.

HOW REGULATIONS AFFECT DATA USE

5% rarely
2% never
3% not sure
21% always
27% sometimes
42% often
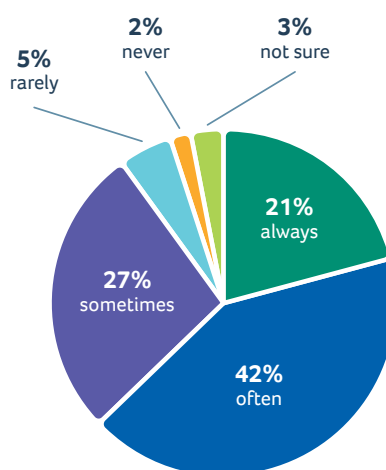
WHY IT'S IMPORTANT TO BUILD AN "AS IS" INVENTORY

Of the respondents who know **all** the data they have in their organization…

- **100%** also know where all or most of their data came from

- **80%** have realized full value from data

What tools do they use?

- **80%** have a data inventory

- **69%** have a data catalog/ data discovery

- **63%** have data governance tools

IT PROFESSIONALS NEED DATA INTELLIGENCE TO THRIVE

IT professionals who are equipped with the right tools and processes are more likely to deliver value. Sixty-nine percent of respondents say they know **most or all** the data they currently have, and 70% say they know where **most or all** their data came from.

That said, there is still room for improvement when it comes to leveraging that data. Thirty-eight percent of respondents wish their organization would provide easier means to know what data is *available* – suggesting a need for processes such as data lineage.

WHAT IT WANTS TO CHANGE ABOUT CURRENT DATA MANAGEMENT

- 41% want improved data governance

- 38% want easier means to know what data is available

- 35% want better connection of data to business strategies

- 35% want better capabilities to comply with data privacy regulations

- 35% want better impact analysis for activities

When employees can easily know what data is available and trusted, they are more likely to use data to drive decision-making. Seven out of 10 (71%) respondents say they **often or always** personally use data to drive/inform their projects and guide decisions. This percentage increases when employees know what data is available.

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87% of the respondents who say they know **most or all** the data they have currently in their organizations also **often or always** use data to drive/inform projects.

83% of the respondents who say they have **no knowledge** of what data they have in their organizations also **rarely or never** use data to drive/inform projects.

Additionally, the easier data is to use, the more likely it *will* be used by employees to guide decision-making. Six out of ten (59%) respondents say **most or all** the data they need to do their job is formatted so they can easily use it (i.e., normalized, high quality, easy to manipulate and search).

86% of respondents who **always** personally use data to drive/inform projects and guide decisions also say **most or all** the data they need to do their job is formatted so they can easily use it.

65% of respondents who **rarely** personally use data to drive/inform projects and guide decisions also say only **some or none** of the data they need to do their job is formatted so they can easily use it.

Equipping employees to make data-driven decisions is essential to realizing the full value of data. Of the respondents who say their organizations have realized full value from data, 82% say they always or often personally use data to drive/inform their projects and guide decisions. **Case and point: employee enablement is the backbone to organizational success.**

Although realizing full value from data may feel far away for roughly half of respondents, ASG asked what business initiatives their organizations would want to fuel when they achieve it:

IT INITIATIVES	PRODUCT INITIATIVES	STAKEHOLDER INITIATIVES
• 53% reducing costs • 45% migrating to the cloud • 43% meeting regulatory compliance needs • 36% reducing the amount of unused data • 32% implementing self-service business intelligence for knowledge workers • 54% improving internal processes	• 38% creating new products based on data • 32% augmenting existing products with data	• 49% improving customer service and/or support • 39% increasing customer loyalty • 38% making smarter business strategies to win the market • 32% satisfying executive and/or board requests • 26% fostering employee engagement

CONCLUSION

Not realizing full value from data is like leaving money on the table. As McKinsey[1] has reported, data-driven organizations are 23 times more likely to acquire customers and 19 times more likely to be profitable. Enterprises need to tap every resource available to gain or maintain an edge over competitors – including their data and their employees. For many, it will start by laying a foundation for data intelligence. Organizations must know what data they have, that it is trustworthy and high-quality. Democratizing data and uniting the IT and business sides of the organization is essential, but it can be pointless – even harmful – if the data being used is bad. Once data is trusted and made available and usable, employees can then be equipped to find, manage, govern and glean insights from it.

During this transformation, IT professionals should be seen as organizations' data champions. As such, they need a skilled team and capable tools to support both defensive and offensive strategies – both of which will only accelerate as regulations and data-driven business progress. In 2020, the C-suite should turn to the IT people on the front lines to understand the organization's specific challenges. The better they are equipped to manage data, the more non-IT people will be able to derive value from that data and fuel the decision-making that drives business forward.

[1] McKinsey Global Institute, The Age of Analytics: Competing in a Data-Driven world.

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