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***From Overload to Impact:
An Industry Scorecard on Big Data Business Challenges***

July 17, 2012

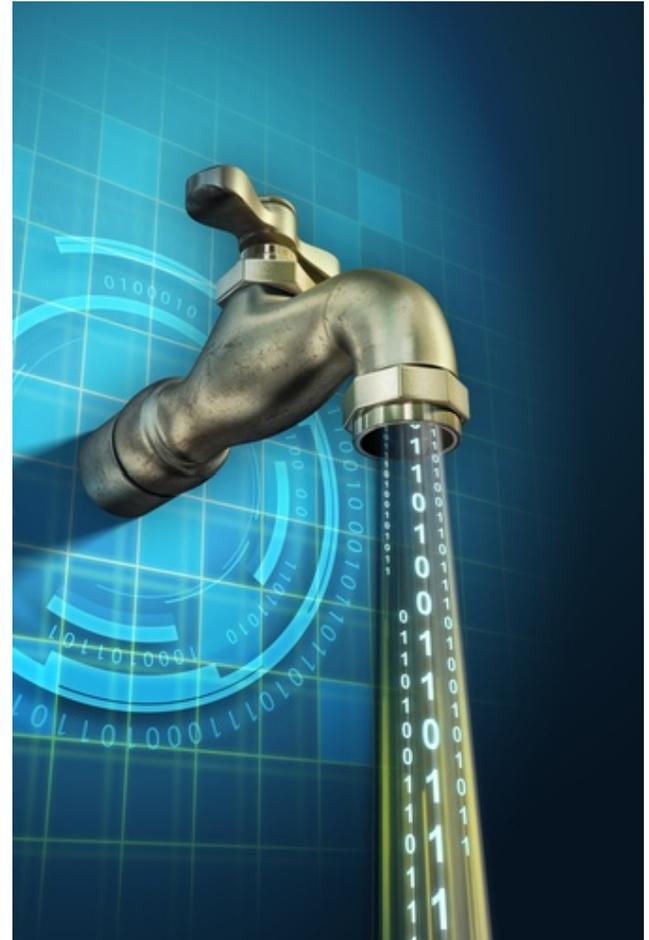
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Introduction

- Organizations are experiencing unprecedented growth in data volume, variety, and velocity; they are increasingly relying on focused IT solutions to generate value by:
 - Addressing their most pressing business challenges
 - Managing and extracting business insight
 - Improving customer service
 - Capitalizing on new business opportunities
- The need for better data management is all too acute, but how are organizations doing?
- Oracle's "From Overload to Impact: An Industry Scorecard on Big Data Business Challenges" report surveyed 333 North American C-level executives to understand their organizations' preparedness to manage the data deluge and, importantly, their ability to extract intelligence to improve operations, capitalize on new opportunities and drive new revenue



Methodology

- Oracle conducted telephone and online interviews with 333 North American C-level industry executives in March and April of 2012*

Sample Demographics:

Title:**

- 8% Owner/Partner
- 21% President/CEO/COO
- 16% CIO/CTO
- 13% CFO
- 42% General Manager/Managing Director

Location:

- 88% United States
- 12% Canada

Industries Surveyed:***

- Airlines
- Communications
- Consumer Goods
- Financial Services
- Healthcare
- Life Sciences
- Manufacturing
- Oil and Gas
- Public Sector
- Retail
- Utilities

Big Data: Businesses Are Not Prepared

- The data explosion is real:
 - Data volume has increased by an average of 86% in the last 2 years
- Most companies are unprepared:
 - 60% of executives rate their companies unprepared to leverage the data and cite significant gaps in people, process, and tools
 - 97% say they need to make changes to improve
- Big data is key to revenue growth:
 - 93% of the executives believe they are losing revenue at an average rate of 14% annually
- Big data is misunderstood:
 - Big data requires an industry-specific business strategy to improve the effectiveness of operational processes and the overall customer experience

The Data Deluge

- Organizations are experiencing unprecedented data growth

94%

Of organizations are collecting and managing **more business information** today than two years ago

86%

Average **increase** in business information collected/managed in the past two years*

Executives say they've seen the **biggest increase** in information variety and volume in the following areas in the last two years:**

- 48%** Customer information
- 34%** Operations
- 33%** Sales/marketing



In the **next two years**, executives predict the greatest information growth in:***

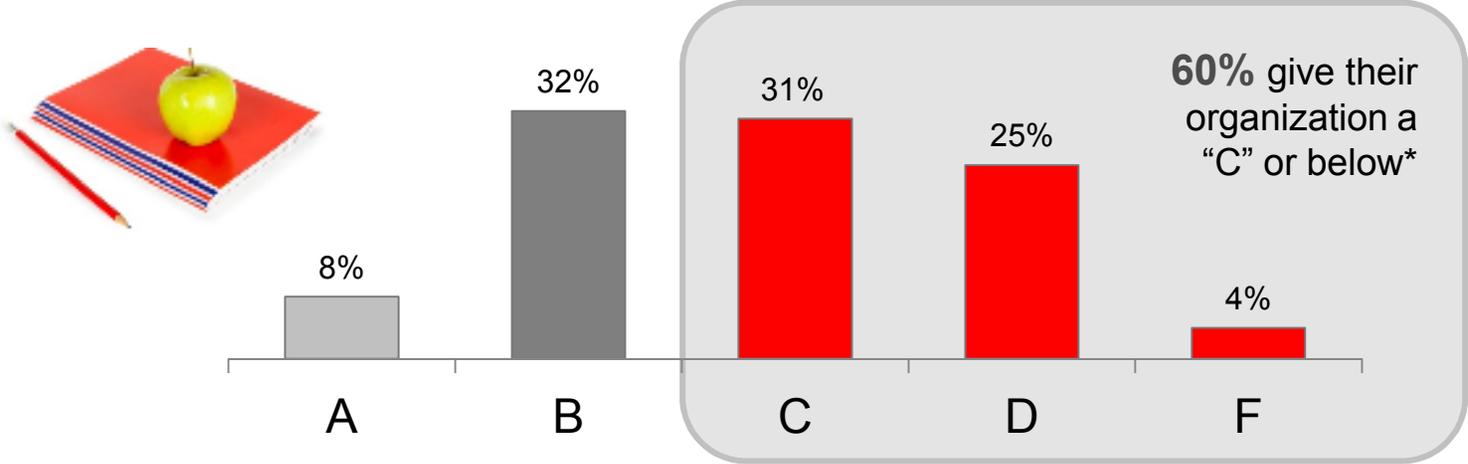
- 39%** Customer information
- 28%** Sales/marketing
- 27%** Operations

Take Away: Customer Information Leads the Surge

Few Are Prepared

- While 67% of executives say that the ability to draw intelligence from their data is a top priority for their organization, 29% give their organization a “D” or “F” in preparedness for a data deluge*

How prepared is your organization to manage a data deluge?*



Communications executives are most confident: 20% give their organization an “A.”
Healthcare executives are least confident: 0% give their organization an “A.”

Take Away: Low Confidence in Data Management Capabilities



*Respondents asked to rank their organization’s preparedness to handle a data deluge, if the amount of information they collect suddenly doubled, on a scale of 1-10 where 1 is not at all prepared and 10 is completely prepared. “A” rankings reflect 9-10 ratings; “B” rankings reflect 7-8 ratings; “C” rankings reflect 5-6 ratings; “D” rankings reflect 3-4 ratings; “F” rankings reflect 1-2 ratings

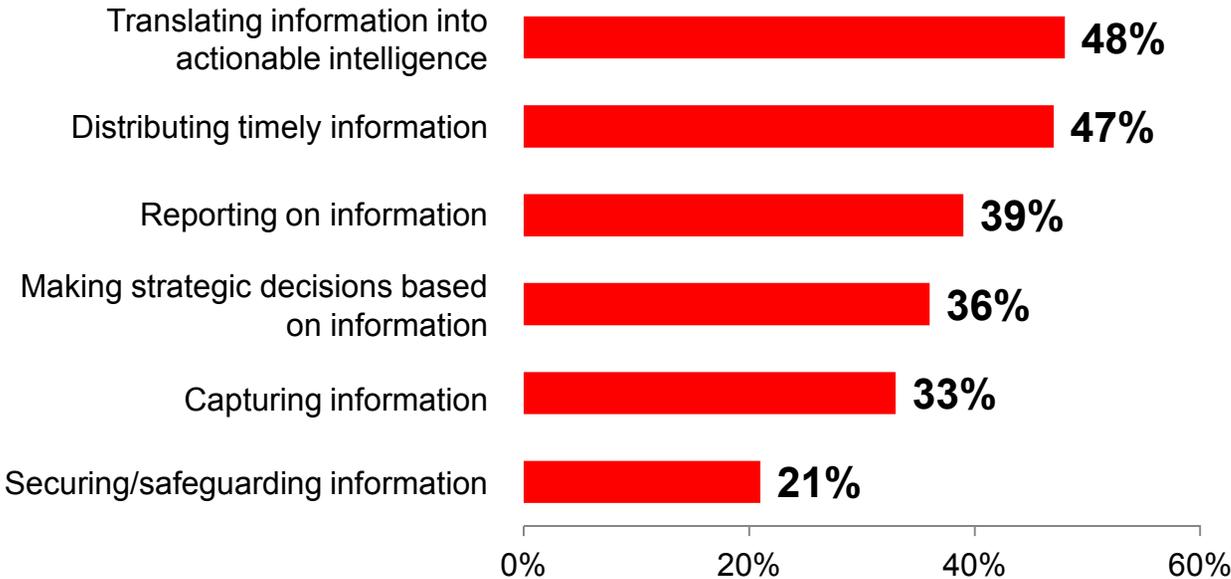
Industries at a Glance

	Public Sector	Healthcare	Utilities	Manufacturing	Airlines	Retail
Preparedness for a data deluge:	41% Give organization "D" or "F"	40% Give organization "D" or "F"	39% Give organization "D" or "F"	34% Give organization "D" or "F"	31% Give organization "D" or "F"	30% Give organization "D" or "F"
	Life Sciences	Oil & Gas	Financial Services	Communications	Consumer Goods	
Preparedness for a data deluge:	29% Give organization "D" or "F"	27% Give organization "D" or "F"	25% Give organization "D" or "F"	20% Give organization "D" or "F"	7% Give organization "D" or "F"	

Data Management Scorecard

- Breaking down data management, executives give their organizations the highest marks in securing data and the lowest marks in distributing timely information and translating data into actionable intelligence*

Percentage of Organizations who Grade Themselves a “C” or Below in the Following Areas:*



Life sciences and communications executives are most confident in their organizations' ability to translate information into intelligence: 30% give their organization an "A." Public sector executives are least confident: Just 3% give themselves an "A" in this area.

Take Away: Passing Data Fundamentals, But Interpretation Needs Work

*Respondents asked to rank their organization's effectiveness in the following areas on a scale of 1-10, where 1 is very poor and 10 is excellent. "A" rankings reflect 9-10 ratings; "B" rankings reflect 7-8 ratings; "C" rankings reflect 5-6 ratings; "D" rankings reflect 3-4 ratings; "F" rankings reflect 1-2 ratings

The Cost of Poor Data Management

- Executives say their organizations are losing revenue each year due to insufficient data management

93% of executives believe their organization is **losing revenue** as a result of not being able to fully leverage the information they collect.

On average, they estimate this lost opportunity to be **14%** of annual revenue.

Organizations with **\$1 billion** or more in revenue* say they're losing approximately **13%** of annual revenue – translating to **\$130 million** in lost opportunity for a \$1 billion organization.



Take Away: Millions to Gain

Top Gripes

- Executives are most frustrated with their organizations' data gathering and distribution systems



Executives' Biggest Data Management Gripes:*

- #1** Don't have the right *systems* in place to gather the information we need (38%)
- #2** Can't give our business managers *access* to the information they need; need to rely on IT (36%)
- #3** Systems are not designed to meet the *specific needs* of our industry (29%)
- #4** Can't make sense of the information we have and *translate* it into actionable insight (25%)
- #5** Information is *no longer timely* by the time it makes it to our business managers (24%)

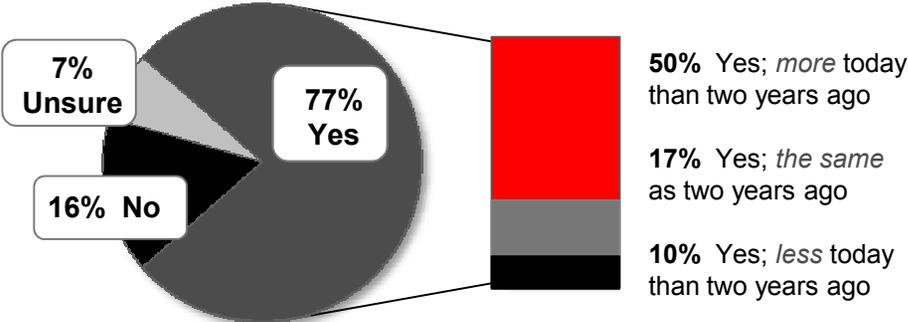
Healthcare executives are most likely to list “don't have the right systems in place” as a top gripe (53%); life sciences executives are least likely (23%). Retail executives are most likely to list “can't give business managers access to the information they need” as a top gripe (53%); financial services executives are least likely (28%).

Take Away: Systems Needed to Gather Data, Put it in the Right Hands

Industry-Specific Applications Essential

- 77% of organizations use industry-specific applications/software to help leverage information to make strategic decisions – and they’re becoming more important

Does your organization use industry-specific applications/software to help you to run your business and leverage information to make strategic decisions?



Financial services (91%) and healthcare (87%) organizations are most likely to use industry-specific applications/software. Manufacturing organizations are least likely (67%).

What type of industry-specific applications does your organization use?

“Applications to measure weather patterns, fuel supplies, available cargo space, as well as air traffic.” – President/CEO/COO, Airlines

“Smart grid, AMI automated metering infrastructure, meter database management system, outage management systems.” – General Manager/Managing Director, Utilities

“Information systems to track oil reserves and distribution. Meeting demand is very important.” – General Manager/Managing Director, Oil & Gas

“Software to collect patient satisfaction and core measures data; software to automate medical records; collection of patient information.” – President/CEO/COO, Healthcare

Take Away: Growing Dependence on Apps that Meet Unique Industry Needs

Industry Opportunities

	% Revenue lost*	Opportunities
Airlines	17%	360-degree View of Passenger Data Integrating passenger data from internal and external sources is key to improving loyalty, pricing, and offers.
Communications	10%	Real-time, Context-sensitive Advertising By collecting input from subscription platforms, value-added services systems, and other sources, comms providers can tailor and deliver ads, offers, and promotions to the customer in real-time.
Consumer Goods	19%	Trade Data Optimization Converting mountains of retail sales, market measurement, and competitor data into insights is key to addressing out of stocks and optimizing promotions.
Financial Services	12%	Sentiment Analysis and Brand Reputation As brand reputation is one of the key drivers of customer acquisition and retention, opportunities abound to capture social data and actively manage public sentiment.
Healthcare	15%	Connected Healthcare Integrating all sources of the medical record is not only critical to delivering care, but also to creating the analytics to drive disease management and prevention.

Industry Opportunities

	% Revenue lost*	Opportunities
Life Sciences	20%	Translational Research Clinical and “omics” data must be put in the hands of people who can turn it into useful insights to realize the potential of personalized medicine.
Manufacturing	10%	Early Warning & Quality Early insight and proactive resolution of product quality issues are key to capitalizing on top- and bottom-line opportunity.
Oil & Gas	22%	Integrated Field Operations Continuously monitoring drilling and field data is key to improving safety and drilling performance.
Public Sector	11%**	Revenue Integrity Correlating data from multiple, unrelated sources is the key to identifying potential fraudulent activities that cost government agencies billions each year.
Retail	10%	Omni-channel Retail Marketing Delivering personalized, tailored offerings to individual customers can drive improved revenue conversion.
Utilities	12%	Demand Response Continuous analytics on data identify anomalies, patterns, and trends to take actionable decisions to improve supply and demand positions.

The Path Forward

- Nearly all executives surveyed (97%) say their organization needs to make a change to improve information optimization over the next two years

To improve information optimization, organizations say they **most need**.*

- 43%** Greater ability to *translate information* into actionable insight
- 38%** Improved tools to collect *more accurate* information
- 38%** *Improved training* to help stakeholders make sense of information
- 36%** More customized systems/applications to *meet needs of their industry*
- 36%** *Direct access* for business managers to business critical information



Additionally, **64%** say it is *important or business critical* for managers to access business information on their mobile devices

Take Away: Improved Tools, Processes, and Access Needed for Success

The Path Forward

- Executives from organizations ready to manage the data deluge offer recommendations for successful preparation

What steps has your organization taken to prepare?*

✓ “We have **streamlined information** systems so the information can get to the required party faster. We also outsource a portion of our information management.”
– President/CEO/COO, Life Sciences

✓ “We **identified the weaknesses** in our data gathering system and are now designing a new software and analytical platform to address these needs.”
– President/CEO/COO, Utilities

✓ “We have changed our [storage] architecture and are **looking to improve** our backup capabilities.” – CIO/CTO, Manufacturing

✓ “We are **growing our talent and staffing**, balancing the team with the growth we expect in data.” – CFO, Financial Services

✓ “We are **working with business units** to determine our needs and trying to figure out how to get different systems to talk to each other.” – CIO/CTO, Utilities

✓ “We have **tripled our storage** capabilities in the last month. We now have shared storage on our computer systems.” – CIO/CTO, Oil & Gas

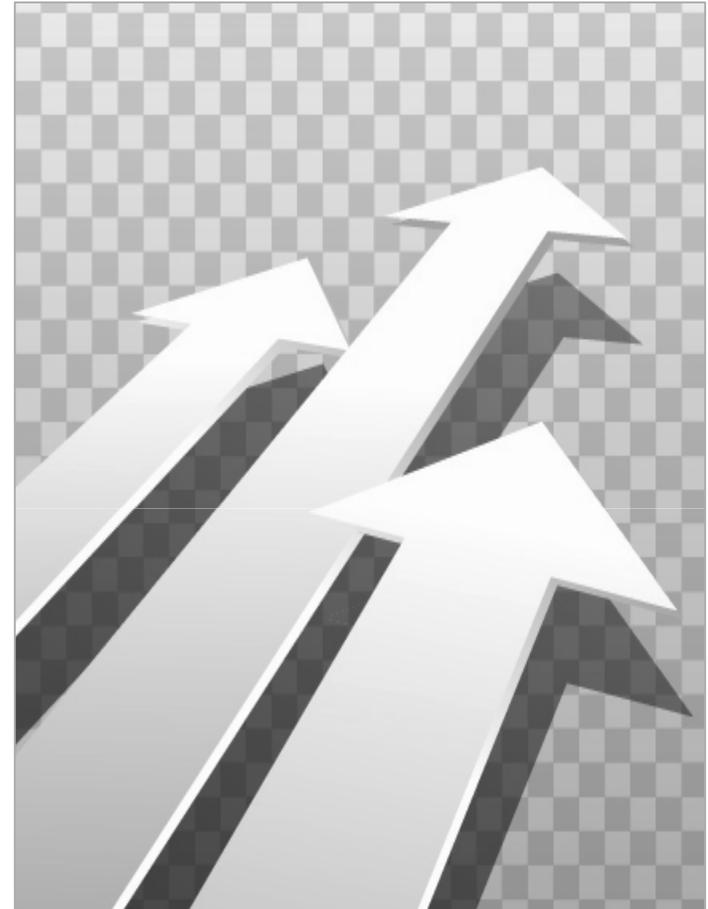
Take Away: Leaders Recommend Upgrading Technology, Staff, and Strategy

Survey Quick Reference Facts

- The data deluge is here:
 - 94% of C-level executives say their organization is collecting and managing more business information today than two years ago, by an average of 86% more*
- Organizations are grappling with data growth in many different business areas. The biggest increases in information are coming in the form of:*
 - Customer information (48%)
 - Operations (34%)
 - Sales/marketing (33%)
- Many are not prepared to handle the massive amount of data coming their way:
 - 29% of executives give their organization a “D” or “F” in preparedness to manage the data deluge; 60% gave themselves a “C” or lower; and just 8% give their organization an “A”**
 - Executives are most frustrated with their ability to gather and distribute data in a timely manner. Top gripes include:
 - Not having the right systems in place to gather the information they need (38%)
 - Not being able to give their business managers access to the information they need (36%)
 - Having to use systems that are not designed to meet the unique needs of their industry (29%)
- Executives see a significant financial opportunity:
 - 93% of executives believe their organization is losing revenue – on average, 14% annually – as a result of not being able to fully leverage the information they collect
 - Organizations with revenues of \$1 billion or more say they are losing approximately 13% of their annual revenue as a result of not being able to fully leverage their information. That translates to \$130 million in lost opportunity each year for a \$1 billion organization

Survey Quick Reference Facts

- However, executives do see a path forward:
 - Nearly all surveyed (97%) say their organization must make a change to improve information optimization over the next two years
 - Top priorities include:*
 - Improving their ability to translate information into actionable insight (43%)
 - Upgrading tools to collect more accurate information (38%)
 - Enhancing training to help stakeholders make sense of information (38%)
- Industry-specific applications are an important part of the mix – 77% of organizations surveyed use them today to run their enterprises...and many are looking for more tailored options



Thank You

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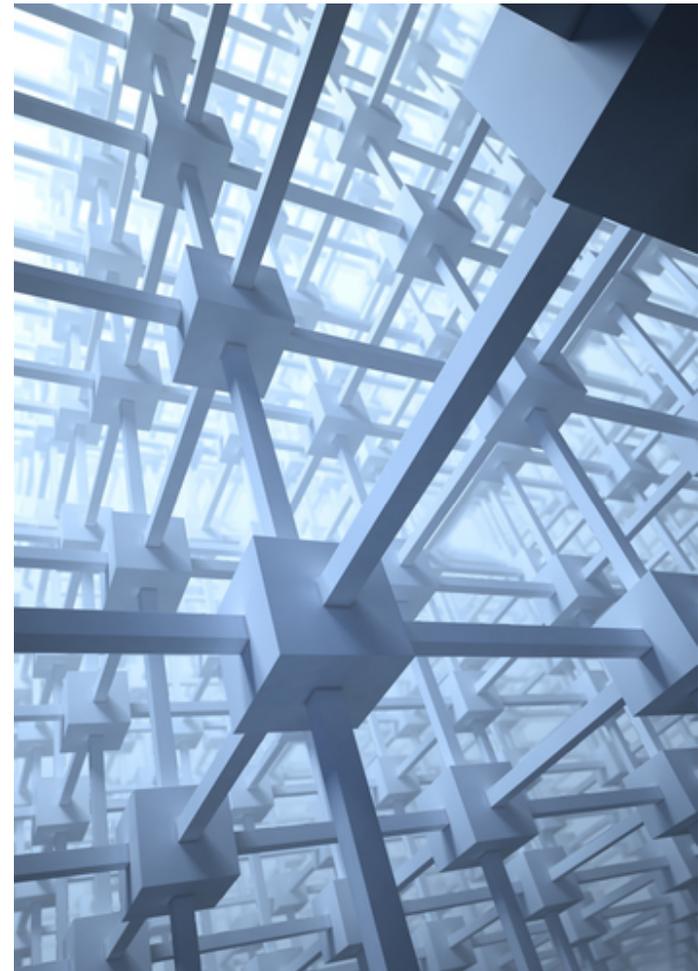
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Airline Industry Key Findings

93%

are collecting and managing more business information today than two years ago

58%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

31% Give their organization a “D” or “F”

73% Give their organization a “C” or lower

3% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Don’t have the right systems in place (43%)

#1 Information is no longer timely when it gets to our business managers (43%)

#2 Can’t give business managers access to the information they need; need to rely on IT (30%)

17%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$134.3M*****

73%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Project management (33%)

#1 Customer Relationship Management (33%)

#2 Financial management (23%)

To improve information optimization, airlines say they most need:****

47% More skilled business analysts to help us manage the volume of information

43% Direct access for business managers to business critical information

43% Improved training to help make sense of information

Airline Industry-Specific Data

In which areas are you making the *best use* of information to drive the business forward?*

- #1 Flight operations (67%)
- #2 Sales, marketing, and reservations (40%)
- #2 Pricing and revenue management (40%)
- #3 Capacity planning (37%)
- #4 Cargo (27%)
- #5 Maintenance and engineering (23%)
- #6 Airport operations (20%)
- #7 Loyalty management (13%)

How would you rate your *ability to glean intelligence* from customer information?

- 3% We have a single 360-degree view of each customer
- 53% We have multiple views of each customer and can piece them together effectively
- 20% We have multiple, but conflicting, views of each customer
- 10% We have only a partial view of each customer and lack insight into many of their interactions with us
- 7% We have a very narrow or non-existent view of the individual customer
- 7% Unsure

Where does your organization face the *biggest challenges* with regard to your ability to effectively acquire, store, analyze, and drive decisions based on your customer information?*

- 37% Consolidating customer information spread across multiple data repositories
- 37% Leveraging customer information to create tailored new offers across channels and customer touch points
- 33% Drawing insights from passenger data residing in legacy reservation systems
- 30% Drawing insights from customer interactions using mobile applications
- 30% Personalizing the customer experience across channels
- 17% Interpreting information collected from customer interactions on social media platforms
- 7% We are not experiencing challenges

Communications Key Findings

93%

are collecting and managing more business information today than two years ago

119%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

20% Give their organization a “D” or “F”

40% Give their organization a “C” or lower

20% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Don’t have the right systems in place (43%)

#2 Can’t give business managers access to the information they need; need to rely on IT (33%)

#3 Information is no longer timely by the time it makes it to our business managers (30%)

10%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$50.1M*****

73%

use **industry-specific applications/software** to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Customer Relationship Management (33%)

#2 Project management (30%)

#3 Workforce and asset management (27%)

To improve information optimization, communications organizations say they most need:****

57% Greater ability to translate information into actionable insight

33% Direct access for business managers to business critical information

30% Improved tools to collect more accurate information

30% Improved training to help us make sense of information

Communications-Specific Data

How would you rate your ability to glean intelligence from customer information?

17%

We have a single 360-degree view of each customer

17%

We have a single 360-degree view of each customer but it does not take into consideration social media engagements

37%

We have multiple views of each customer and can piece them together effectively

13%

We have multiple, but conflicting, views of each customer

10%

We have only a partial view of each customer relationship and lack insight into many of their interactions with us

3%

We have a very narrow or non-existent view of the individual customer

3%

Unsure

Where does your organization face the *biggest challenges* in regard to your ability to optimize and understand information to improve agility and capitalize on new opportunities?*

37% Improving the cross-channel customer experience

33% Designing and bringing new services to market

27% Accelerating service order delivery

20% Connecting with partners and third-party content developers

20% Creating new offers and campaigns

17% Leveraging customer information to upsell new offers

17% Enabling flexible rating/billing (real-time, pre-paid, and post-paid)

Consumer Goods Key Findings

90%

are collecting and managing more business information today than two years ago

71%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

7% Give their organization a “D” or “F”

42% Give their organization a “C” or lower

10% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (43%)

#2 Systems are not designed to meet the specific needs of our industry (37%)

#3 Don’t have right systems in place (33%)

19%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$74.4M*****

77%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Customer Relationship Management (37%)

#2 Workforce and asset management (33%)

#3 Project management (30%)

To improve information optimization, consumer goods organizations say they most need:****

53% Improved training to help make sense of information

50% Direct access for business managers to business critical information

47% Greater ability to translate information into actionable insight

Consumer Goods Specific Data

Percentage of consumer goods executives who *agree* with the following statements:*

80% Our ability to capture and analyze large data sets (i.e. “big data”) has *improved* our efforts to attract and retain customers

73% We are *very effective* at leveraging customer data and insights to improve interactions with customers

60% We *collaborate* with key retail partners to leverage their consumer understanding and insights

40% We collect plenty of consumer data but *don't have the tools* to analyze it effectively

37% We *share consumer data* with our retail partners to improve our merchandising and marketing programs

In which of the following areas does big data have the opportunity to create the *most value* for your organization?*

#1 Collaborating with retailers to shape demand at the item/store level to deliver a better customer experience (60%)

#2 Driving the innovation and development of new products with outside input from consumers/external experts (53%)

#3 Improving demand forecasting and supply planning across the extended value chain (40%)

#4 Enhancing interactions with the brand from social media data (30%)

#5 Integrating consumer, demand, and market data to more accurately predict consumer behavior (27%)

#6 Integrating retailer data with other datasets (13%)

#7 Providing input into our Demand Signal Repository (3%)

Financial Services Key Findings

94%

are collecting and managing more business information today than two years ago

75%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

25% Give their organization a “D” or “F”

56% Give their organization a “C” or lower

3% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Information is no longer timely when it gets to our business managers (38%)

#2 Don’t have right systems in place (34%)

#2 Systems are not designed to meet the specific needs of our industry (34%)

12%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$64.6M*****

91%

use **industry-specific applications/software** to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Financial management (34%)

#1 Customer Relationship Management (34%)

#1 Regulatory compliance (34%)

To improve information optimization, financial services organizations say they most need:****

47% More customized systems/applications to meet needs of their industry

38% Greater ability to translate information into actionable insight

38% Improved tools to collect more accurate information

Financial Services Specific Data

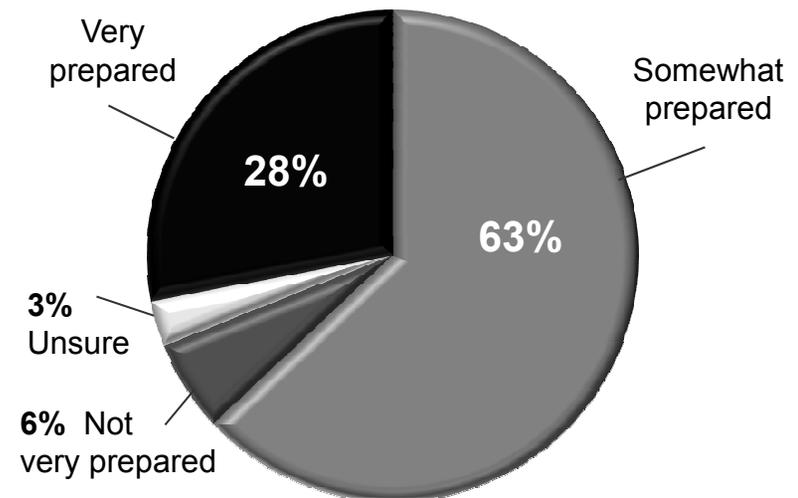
In which of the following areas do you feel your organization does the *best job* of leveraging your data to move the business forward?*

- #1 Regulatory compliance (38%)
- #2 Customer service (34%)
- #3 Sales/marketing (31%)

In which areas could your organization *benefit most* from better business intelligence or analytical capabilities?*

- #1 Risk management (44%)
- #2 Alignment of risk and finance (41%)
- #2 Regulatory compliance (41%)

How prepared is your organization to deal with the analytical needs associated with financial reform and new regulatory requirements?



Healthcare Key Findings

100% are collecting and managing more business information today than two years ago

85% Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

40% Give their organization a “D” or “F”

77% Give their organization a “C” or lower

0% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Don’t have the right systems in place (53%)

#2 Can’t make sense of the information we have and translate it into actionable insight (47%)

#3 Systems are not designed to meet the specific needs of our industry (40%)

15% of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$70.2M*****

87%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Customer Relationship Management (57%)

#2 Regulatory compliance (50%)

#3 Billing and revenue management (40%)

To improve information optimization, healthcare organizations say they most need:****

63% Greater ability to translate information into actionable insight

50% Improved tools to collect more accurate information

47% More customized systems/applications to meet needs of their industry

Healthcare-Specific Data

From which functional business areas are you actively gathering and analyzing information in order to drive efficiency?*

- #1 Patient relationship management (73%)
- #2 Quality of care (70%)
- #3 Financial management (63%)
- #4 Risk management (57%)
- #5 Staffing/human resources (50%)
- #5 Capacity management (operating room utilization, occupancy rates, etc.) (50%)

Is your organization *able to capture* critical patient information in an Electronic Health Record (EHR)?

- 34% Yes, we are using an EHR extensively and are capturing significant information that is enabling us to improve care delivery
- 43% We have an EHR system in place, but we are still not capturing enough or the right information
- 20% We have started to implement an EHR, but we do not have it in place yet
- 0% We have plans to implement an EHR, but have not started yet
- 3% We do not plan to implement an EHR at this time

Does your organization have the information systems in place to support care beyond the walls of your facility?

14% Yes, we are already doing it



63% Yes, we are in the process of implementing these systems



17% No, but it is in our plans for the next two years



3% No, this is not in our plans



3% Unsure



Life Sciences Key Findings

93%

are collecting and managing more business information today than two years ago

78%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

29% Give their organization a “D” or “F”

47% Give their organization a “C” or lower

10% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (30%)

#2 Information is no longer timely when it gets to our business managers (27%)

#2 Systems are not designed to meet the specific needs of our industry (27%)

20%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$98.5M*****

73%

use **industry-specific applications/software** to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Research and development (30%)

#2 Project management (27%)

#3 Workforce and asset management (20%)

To improve information optimization, life sciences organizations say they most need:****

50% Improved training to help make sense of information

50% More skilled business analysts to help us manage the volume of information

47% Improved tools to collect more accurate information

Life Sciences-Specific Data

In which of the following areas do you feel your organization does the *best job* of leveraging your data to move the business forward?*

- #1 Research and development (33%)
- #2 Regulatory submissions/compliance (27%)
- #3 Sales/marketing (23%)
- #3 Customer service (23%)

In which areas could your organization *benefit most* from better business intelligence or analytical capabilities?*

- #1 Supply chain management (37%)
- #1 Regulatory submissions/compliance (37%)
- #2 Clinical trial management (33%)
- #3 Research and development (30%)

Is your organization involved in the development of personalized therapeutics/treatments?

27% Yes



4% No, but we are planning to be



33% No, and we do not plan to be



23% Not applicable to our organization



13% Unsure



Manufacturing Key Findings

90%

are collecting and managing more business information today than two years ago

86%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

34% Give their organization a “D” or “F”

65% Give their organization a “C” or lower

7% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (43%)

#2 Don’t have the right systems in place (37%)

#3 Can’t make sense of the information we have and translate it into actionable insight (27%)

10%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$40.8M*****

67%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Financial management (30%)

#1 Supply chain management (30%)

#2 Workforce and asset management (27%)

To improve information optimization, manufacturing organizations say they most need:****

47% Greater ability to translate information into actionable insight

43% Improved training to help us make sense of information

43% Improved tools to collect more accurate information

43% Direct access for business managers to business critical information

Manufacturing-Specific Data

In which areas are you making the *best use* of information to drive business growth?*

- #1 Sales and marketing (47%)
- #2 Engineering and design (43%)
- #3 Supply chain (40%)
- #3 Production (40%)
- #4 Distribution (20%)
- #5 Finance (17%)

Where are you *struggling most* to capture information and make high-impact business decisions from it?*

- #1 Sales and marketing (27%)
- #2 Supply chain (23%)
- #3 Production (13%)
- #3 Service (13%)
- #3 Finance (13%)

27% said “we are not struggling in any area”

How would having access to the information you require enable you to make better decisions?
What types of decisions would you like to be able to make with this data?

“More information would keep the machines running better and *increase reliability*.”

“The more information received, the *better the product*.”

“[Data would enable us to] *forecast trends* in customer buying behavior to better plan new products and anticipate industry changes.”

Oil & Gas Key Findings

74%

are collecting and managing more business information today than two years ago

96%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

27% Give their organization a “D” or “F”

54% Give their organization a “C” or lower

13% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (32%)

#2 Don’t have the right systems in place (29%)

#3 Systems are not designed to meet the specific needs of our industry (23%)

22%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or \$103.6M**

74%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Project management (36%)

#2 Regulatory compliance (32%)

#3 Customer Relationship Management (26%)

To improve information optimization, oil & gas organizations say they most need:****

48% Direct access for business managers to business critical information

32% Improved training to help us make sense of information

32% Improved tools to collect more accurate information

32% Greater ability to translate information into actionable insight

Oil & Gas-Specific Data

In which areas are you making the *best use* of your data to drive the business forward?*

- #1 Financial (42%)
- #2 Production (36%)
- #3 Distribution (26%)
- #4 Safety (23%)
- #5 Maintenance/asset management (19%)
- #5 Project management (19%)

Can you act as fast as you acquire and analyze information?

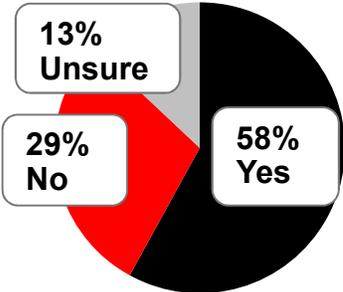
- 32%** Yes, almost always – we are very agile
- 55%** Sometimes, depending on the information and action required
- 13%** No, we can't act or execute that fast

In which areas are you *struggling most* to make sense of your data and put it to good use?*

- #1 Market intelligence (26%)
- #1 Safety (26%)
- #2 Project management (23%)
- #3 Maintenance/asset management (16%)
- #3 Exploration – geological/seismic (16%)

13% said "We are not struggling in any area"

Is your financial data integrated with technical data for decision making?



*Respondents asked to select the top three

Public Sector Key Findings

93%

are collecting and managing more business information today than two years ago

102%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

41% Give their organization a “D” or “F”

83% Give their organization a “C” or lower

7% Give their organization an “A”

Executives’ Biggest Data Management Grips:**

#1 Don’t have the right systems in place (40%)

#2 Can’t make sense of the information we have and translate it into actionable insight (37%)

#3 Can’t give business managers access to the information they need; need to rely on IT/Systems are not designed to meet specific needs of our industry (33%)

11%

of average annual budget lost as a result of not being able to fully leverage the information they collect, or **\$60.5M*****

77%

use **industry-specific applications/software** to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Project management (33%)

#1 Customer Relationship Management (33%)

#1 Workforce and asset management (33%)

To improve information optimization, public sector organizations say they most need:****

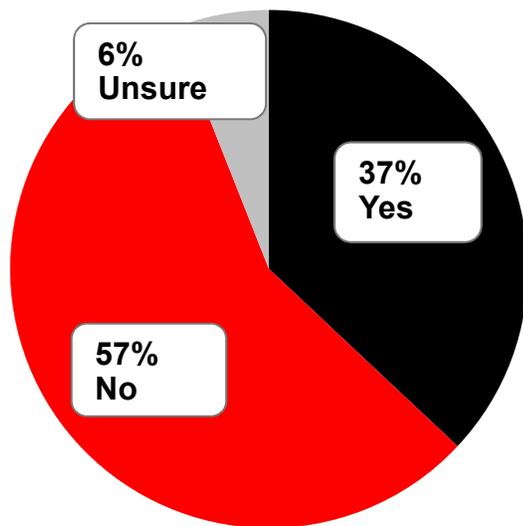
60% Greater ability to translate information into actionable insight

37% Improved tools to collect more accurate information

37% More customized systems/applications to meet needs of their industry

Public Sector-Specific Data

Are you able to achieve a single constituent view – meaning one consolidated view of all interactions with each constituent – across multiple departments and programs?



Do your organization leaders have *timely access* to the information they need to successfully track program performance and set measurable goals?

- 17% Yes – 100% of the time
- 47% Most of the time – 75% of the time
- 33% Sometimes – 50% of the time
- 3% Rarely – 25% of the time or less
- 0% No

What is the *biggest challenge* your organization faces in regard to leveraging information to improve government efficiency and constituent service?

- #1 Siloed agencies/departments that do not share information (37%)
- #2 Accuracy and relevance of information (27%)
- #3 Security requirements or restrictions that inhibit ability to distribute information (13%)
- #3 Inability to engage and track citizens/constituents across channels, or in their preferred channel (13%)

Retail Key Findings

90%

are collecting and managing more business information today than two years ago

98%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

30% Give their organization a “D” or “F”

57% Give their organization a “C” or lower

3% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (53%)

#2 Don’t have the right systems in place (50%)

#3 Systems are not designed to meet the specific needs of our industry/Can’t make sense of the information we have and translate it into actionable insight (33%)

10%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$50.5M*****

83%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Customer Relationship Management (43%)

#2 Workforce and asset management (33%)

#3 Supply chain management (30%)

To improve information optimization, retail organizations say they most need:****

40% Improved tools to collect more accurate information

40% More customized systems/applications to meet needs of their industry

37% Greater ability to translate information into actionable insight

Retail-Specific Data

How would you rate your ability to gain insight from customer data you gather across multiple channels?

- 17% We have a single 360-degree view of each customer
- 10% We have a single 360-degree view of each customer but it does not take into consideration social media engagements
- 47% We have multiple views of each customer and can piece them together effectively
- 13% We have multiple, but conflicting, views of each customer
- 10% We have only a partial view of each customer relationship and lack insight into many of their interactions with us
- 3% We have a very narrow or non-existent view of the individual customer

Which of the following are *most critical* to meeting the needs of key business groups throughout your organization?*

- #1 Better store systems, including POS and store (43%)
- #1 More consistent and complete view of merchandise and inventory, throughout the supply chain and in stores (43%)
- #2 Mobile access to customer, product, inventory, and other information for store associates (40%)
- #2 More consistent and complete view of the customer, throughout the retail enterprise (40%)

Where does your organization face the *biggest challenges* in regard to your ability to optimize and understand your information to improve agility and capitalize on new opportunities?*

- 40% Improving the cross-channel customer experience
- 30% Optimizing the supply chain
- 27% Leveraging customer information to create personalized offers/campaigns
- 27% Tracking and optimizing inventory
- 27% Streamlining merchandising and pricing
- 27% Managing in-store operations
- 23% Creating new offers and campaigns consistently/commonly across channels
- 3% Optimizing the product assortment across online and store shelves
- 3% We are not experiencing challenges

Utilities Key Findings

83%

are collecting and managing more business information today than two years ago

82%

Average increase in business info collected/managed in last two years*

Preparedness for a Data Deluge:

39% Give their organization a “D” or “F”

68% Give their organization a “C” or lower

7% Give their organization an “A”

Executives’ Biggest Data Management Gripes:**

#1 Can’t give business managers access to the information they need; need to rely on IT (37%)

#2 Don’t have the right systems in place (27%)

#2 Systems are not designed to meet the specific needs of our industry (27%)

12%

of average annual revenue lost as a result of not being able to fully leverage the information they collect, or **\$62.1M*****

70%

use industry-specific applications/software to help leverage information to make strategic decisions

However, they see room for enhancement in the following applications available to meet their industry-specific needs:****

#1 Customer Relationship Management (50%)

#2 Regulatory compliance (33%)

#3 Workforce and asset management (30%)

To improve information optimization, utilities organizations say they most need:****

43% Improved training to help us make sense of information

33% Direct access for business managers to business critical information

30% Access to business critical information on mobile devices

30% Improved tools to collect more accurate information

ORACLE

*Based on the 83% of respondents who are collecting and managing more data now than two years ago

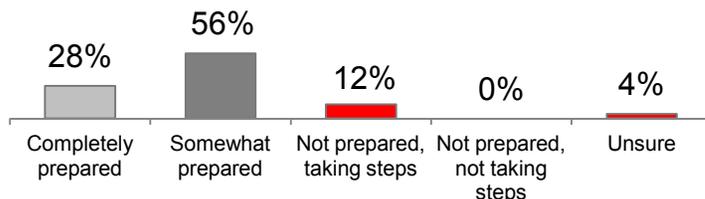
Respondents asked to select the top three *Figure based on the average revenue of organizations surveyed ****Respondents asked to select all that apply

Utilities-Specific Data

Have you implemented a smart grid/smart meter program?

- 14% Yes – we have *completed* a full deployment
- 23% We are *in the process* of rolling out a full-scale deployment
- 33% We have completed *one or more* pilot programs
- 13% We are in the *planning stages*
- 13% No, we *have not implemented* a smart grid/smart meter program and are not currently planning to do so
- 4% Unsure

How would you rate your preparedness to manage, analyze, and distribute the data that smart grids/smart meters are delivering to your utility?*



Which of the following are the biggest obstacles you face in optimizing the business value of data generated by smart grids/meters? **

- 24% Lack of *systems to support* managing skyrocketing data volume***
- 20% Lack of *business intelligence/analytics tools* to make sense of the data***
- 20% Challenges in *identifying which departments “own”* or are responsible for information management and analytics***
- 20% Challenges in getting *useful reports into the right hands* in the organization to effect real change***