HFS Research

Bad Data is Killing Your Business Transformation Efforts

A C-Suite Guide to Stop Talking and Start Doing

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Executive summary

This study sought to understand the benefits, challenges, financial returns, and strategic value of optimized data management in global enterprises.

Ninety percent (90%) of C-level enterprise executives cite data as a critical success factor, but only 5% have all the data they need.

Data is a critical asset to an enterprise's success:

- Eighty-nine percent (89%) of executives cited "a high level of data quality" as key to business success
- Fewer executives, eighty-five percent (85%), cited "executive management acumen" as a key success factor

Enterprises today are not ready to capitalize on their data opportunity:

- Seventy-five percent (75%) of executives admit they do not have a very high level of trust in their data
- Seventy percent (70%) of executives admit they do not have a world-class data architecture in place

Data investment will increase and accelerate over the next two years at a faster rate than overall IT investment in global enterprises:

- Eighty percent (80%) of executives agree that by 2022, data will be a top 1, 2, or 3 priority investment area due to its strategic value and potential
- The top-ranked pursued data outcomes include (1) accelerating digital transformation, (2) innovating new products and services, (3) reducing downtime and interruptions, (4) optimizing returns from analytics, predictive modeling, artificial intelligence (AI), and machine learning (ML), and (5) increasing overall valuation of the company

"

OneOffice Success – it all starts and ends with data. Your strategy is to refine it.

– Phil Fersht, February 2021

"

Companies are looking for new ways to grow, and they will want to use their data as a foundation for that growth. They will ask, 'How do we use data to sell more products to customers? How can I combine data to empower more people?' Answering these questions for your company and doing so faster and better than competitors will be instrumental.

– Kevin Campbell, CEO of Syniti, on the role data plays as companies emerge from pandemic conditions

Study focus and respondent profiles

- This study seeks to understand data's importance and data management's role and maturity as parts of a company's strategy
- One hundred (100) C-level respondents' companies have more than $1 billion in revenue
- Functional representation: C-suite (55%), IT (34%), and functional leadership roles (11%)
- Respondents were from North America (46%), Western Europe (40%), and the Asia Pacific region (14%)

- Sixty-eight percent (68%) of represented companies had growth of 6% or more for fiscal year 2020
- Fifty-nine percent (59%) of represented companies had profit growth of 6% or more for fiscal year 2020
- Twenty-three percent (23%) of respondents implemented data management at scale, with 46% in a few functional areas but not at scale across the whole enterprise

Part 1: Understanding data's significance & value — Why is data so important for businesses today?

In 2017, The Economist published a story titled, "The world's most valuable resource is no longer oil, but data." Since its publication, this assertion is no longer controversial. "Data is the new oil" has become a common refrain, and there is abundant evidence supporting this.

Based on the study HFS completed in conjunction with Syniti in Q1 2021 on the strategic importance of data in the enterprise, about 90% of C-suite executives cite a high level of data quality as a critical factor to overall company success. In contrast, 85% named management acumen as the key aspect, illuminating a key insight from leading executives about today's competitive enterprise landscape—data is twice as important as management competency to an enterprise's success.

Certainly, data will not replace senior leaders in the corner office. However, senior management's acumen and speed combined with effective data management creates a significant competitive advantage and is crucial to successful decision making that ensures superior financial performance. Robust data management is a key strategic pillar in global enterprises, without which any company's investment in artificial intelligence (AI), machine learning (ML), robotic process automation (RPA), or analytics will deliver wrong, sub-par, or even disastrous results. Conversely, robust and strategic data management will enhance seamless operations of an enterprise's front, middle, and back offices, enable faster and better decision making, and accelerate competitive advantage with outsized financial returns.

> *The cost of bad data is staggering, but most people don't personalize it. If you talk to a C-level executive, they'll say, 'I have an inventory problem,' or 'My supply chain has issues.' After thousands of projects, we know that almost 90% of the time it's caused by a data problem. Either the right data isn't properly accessible, or the data's not clean enough for what needs to be done.*
>
> **- Kevin Campbell, CEO of Syniti, on the change in the perceived value of data**

Data's quality and a company's success are tightly linked

Achieving the highest levels of data quality is a top mission-critical objective for continued success, along with financial stability and product and service innovation. Indeed, both data's importance and financial stability's criticality are ranked by nine out of 10 executives as imperative to a company's success.
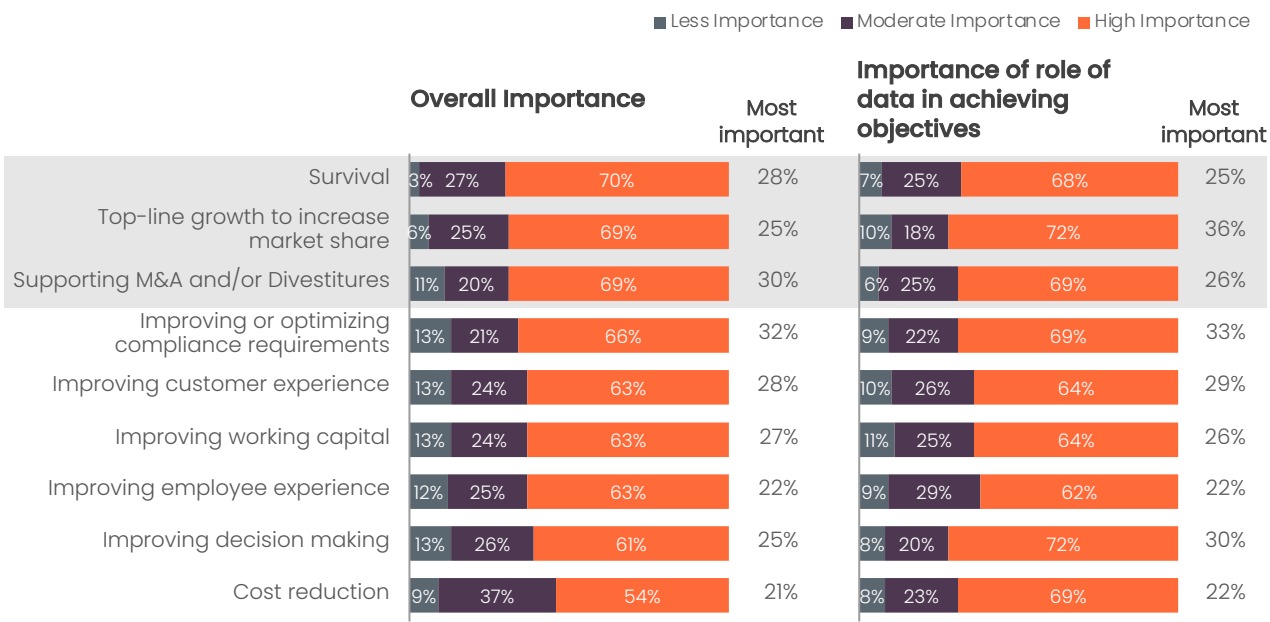
To drill down on the direct impact of data, as shown in Exhibit 1, around 70% of executives believe data plays a key role in a company's survival, top-line growth, and M&A and divestiture activity.

Data plays a key role in the financial health and growth of companies

Q: What is the importance of each objective in your company's overall strategy, and how important is trusted, high quality data in achieving them in the new environment?

■ Less Importance ■ Moderate Importance ■ High Importance

	Overall Importance			Most important	Importance of role of data in achieving objectives			Most important
Survival	3%	27%	70%	28%	7%	25%	68%	25%
Top-line growth to increase market share	6%	25%	69%	25%	10%	18%	72%	36%
Supporting M&A and/or Divestitures	11%	20%	69%	30%	6%	25%	69%	26%
Improving or optimizing compliance requirements	13%	21%	66%	32%	9%	22%	69%	33%
Improving customer experience	13%	24%	63%	28%	10%	26%	64%	29%
Improving working capital	13%	24%	63%	27%	11%	25%	64%	26%
Improving employee experience	12%	25%	63%	22%	9%	29%	62%	22%
Improving decision making	13%	26%	61%	25%	8%	20%	72%	30%
Cost reduction	9%	37%	54%	21%	8%	23%	69%	22%

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

Furthering this argument is that roughly 15% of companies project increases of more than 10% in cash flow, profitability, and revenue through the use of enhanced data quality, visibility, and strategic use.

The benefits of effective data management are overt. However, only a select few companies today have a clear plan for managing data well and harnessing its full value. For the whole group of surveyed companies, 14% project revenue increases of 11% or more due to effective data management. For those that have done data management at scale, the number doubles to 30% for increases of 11% or more. Even more compelling, half of the companies that see increases of greater than 11% have already executed data management at scale.

Data is pervasive in global enterprises

Data's tentacles are far-reaching in the enterprise, which is reinforced by the fact that 56% of executives believe it is mission critical to harness data in the post-pandemic environment for operations, 46% for financial performance, and 40% for customer-facing activities. The linkage between financial performance and data is most pronounced in Western Europe, with 58% citing data as the most critical input.

> *Strategizing the power of information and feeding this into the business operation will enable an organization to reduce cost and improve revenue. The underpinning data therefore is less about the system, but more about organizing the information asset the organization requires. Throughout my career the latter has been my focus and the achieved cost reductions by the business are supporting the added value claim of leading the data strategy. Embarking on digitalization and fast-moving dynamic data, the possibilities of business added value through information & data are increasing rapidly.*
>
> **– Lenno Maris, Global Director of Enterprise Data on the strategic use of data Friesland Campina**

The combination of data with the right choice of emerging technologies will improve competitive advantage

Companies use data in all aspects of their operations, but it is increasingly critical in conjunction with disruptive technologies such as RPA, blockchain, AI, and ML. Roughly 80% of executives strongly agree that disruptive technologies fueled by data will transform the competitive landscape. Another example of disruption is that companies are significantly changing their emphasis on planning to launch "digital" products or services through either pure technology or enhancing physical products and services to make them digital via more or better data use.

As shown so far, the benefits of utilizing data effectively are far-reaching and go well beyond merely improving IT operations or enhancing a narrowly defined data and analysis function.

Still though, a substantial majority (70%) of enterprise leaders believe they are underutilizing data resources because of poor data management.

The consequences of ignoring data as a strategic company asset are significant to a company's health, profitability, and success. COVID-19 threw a massive challenge in the global economy's data management journey, becoming an impediment for some and an accelerant for others. While data management was critical before COVID-19, the changes and pivots required to navigate the pandemic with certainty and strategic confidence emphasized how data is more important than ever for companies today. Roughly 45% of respondents indicated that COVID-19 fundamentally changed their companies by accelerating investments in a data management initiative.

Next, we'll explore the reasons and remedies for this disconnect between the importance of data and its successful use and suggest means to achieve the promised benefits of using data at scale across the enterprise.

Part 2: Current state of data management – Aspirations are high, though only 5% of companies claim that 100% of their data is good enough today

Companies have begun treating data as a strategic asset. In fact, nearly 70% of enterprises treat data like any other asset from an accounting standpoint. Also, an increasing number of enterprise companies see the value of monetizing that data to improve cash flow, increase margins, and accelerate strategic decisions. This reinforces the change in perspective of data not being just an "IT/technically-owned item" but a broad-based company asset.

> *Most companies have multiple ERP systems and are creating data all over the place. They can push it all into a data warehouse or data lake, but that generally just obscures problems instead of solving them.*
>
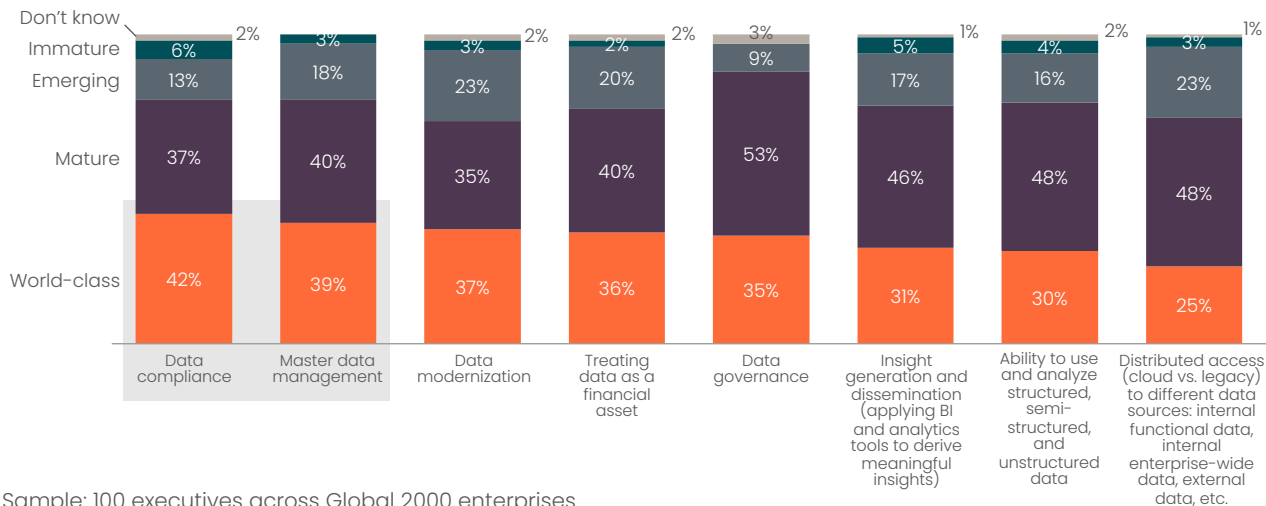> **- Kevin Campbell, CEO of Syniti, on key challenges in data migrations**

Regarding the current level of data architecture maturity, as shown in Exhibit 2, 75% to 80% of executives claim their companies are either world class or mature across most categories of data architecture. Data modernization and distributed access to varied information sources are emerging as key areas that will continue to gain even more traction in the future.

Exhibit 2

A majority of enterprises claim to be world class or mature in data architecture

Q: How would you rate your maturity in the following areas of overall data architecture?

	Data compliance	Master data management	Data modernization	Treating data as a financial asset	Data governance	Insight generation and dissemination (applying BI and analytics tools to derive meaningful insights)	Ability to use and analyze structured, semi-structured, and unstructured data	Distributed access (cloud vs. legacy) to different data sources: internal functional data, internal enterprise-wide data, external data, etc.
Don't know	2%	3%	2%	2%	3%	1%	2%	1%
Immature	6%	3%	3%	2%	9%	5%	4%	3%
Emerging	13%	18%	23%	20%	9%	17%	16%	23%
Mature	37%	40%	35%	40%	53%	46%	48%	48%
World-class	42%	39%	37%	36%	35%	31%	30%	25%

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

Despite their awareness of the importance and benefits of data and claims of overall architectural maturity, which has many gradations of sophistication, the vast majority of global enterprises are far behind in effective data management practices.
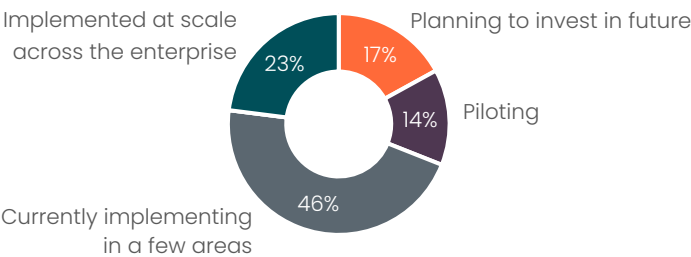
Around 46% of companies are currently implementing a consistently siloed global data management strategy (see Exhibit 3). Only 23% of the companies use a consistent and policy-aligned data strategy at scale across the enterprise. Moreover, 45% of respondents agree that "they are significantly under-utilizing their data resources due to the lack of an effective data management strategy."

Only 23% of companies have implemented a data strategy at scale across the enterprise

Q: At what stage of adoption is your company in implementing a consistent global data management strategy?

Implemented at scale across the enterprise — 23%
Planning to invest in future — 17%
Piloting — 14%
Currently implementing in a few areas — 46%

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

Moreover, many companies work with data that has significant gaps. As highlighted in the red box in Exhibit 4, only 5% of companies claim that 100% of their data is good enough today.
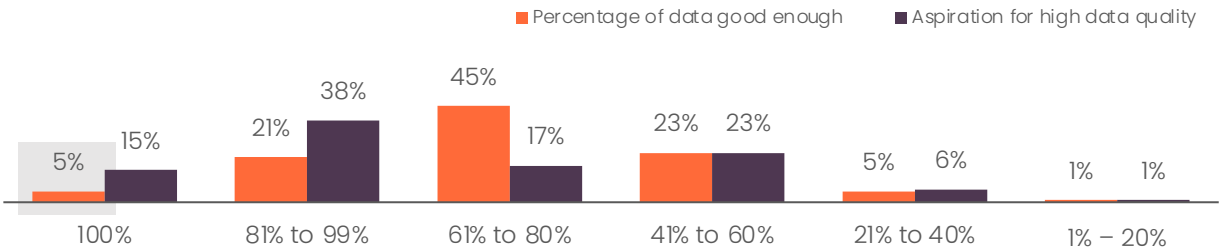
And, most telling, 25% of companies still have low or moderate levels of trust in their data. To achieve major transformation and gain a competitive advantage using data, companies must pursue a world-class status across most of these architectural categories.

Only 5% of companies have 100% of their data that is good enough

Q: What percentage of data is good enough in terms of quality, and what do you aspire to?

Legend: Percentage of data good enough ■ Aspiration for high data quality

	100%	81% to 99%	61% to 80%	41% to 60%	21% to 40%	1% – 20%
Percentage of data good enough	5%	21%	45%	23%	5%	1%
Aspiration for high data quality	15%	38%	17%	23%	6%	1%

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

> "
>
> *The first thing I ask people about is their data strategy. Meaning, have they thought about their data and tiered it into the A, B, C levels of importance? What can they measure, and how are they using it?*
>
> **- Kevin Campbell, CEO of Syniti, on where should a company start with its data**
>
> "

Part 3: Enterprises have much work to do to cross the chasm between knowing the value of data and leveraging it effectively

Who can drive this?

The primary owner of both data strategy and its execution is the CIO/CTO, followed by the CEO. One-fourth of the enterprise companies have the CEO leading the efforts, underscoring the importance of a well-formulated and C-suite-sponsored data implementation roadmap.

For this group, a company's data is too important to be treated only as an IT or technical function. Most enterprises agree that "they have established clear roles and responsibilities to command, decide, approve, or disapprove the full range of data-related activities" to ensure meaningful impact for data management. They have also invested in business and organizational expertise to deploy in centers of excellence (COEs) that focus on data management. Only some of the key elements required for effective data management are in place today.

Yet, either the IT department or a separate centralized data team often owns the strategy and execution for data governance in the company, underscoring the continuing tactical nature of data management and governance at many companies, as shown in Exhibit 5. This is a major area of potential differentiation and the creation of competitive advantage for enterprises.

Exhibit 5

Ownership of strategy and governance of data

Q: Who owns the strategy and execution for governance of data?

Strategy	Departments	Execution
29%	Separate centralized data team	27%
19%	Business unts	19%
44%	IT	34%
7%	Hybrid	14%
1%	No owner	6%

Sample: 100 executives across Global 2000 enterprises
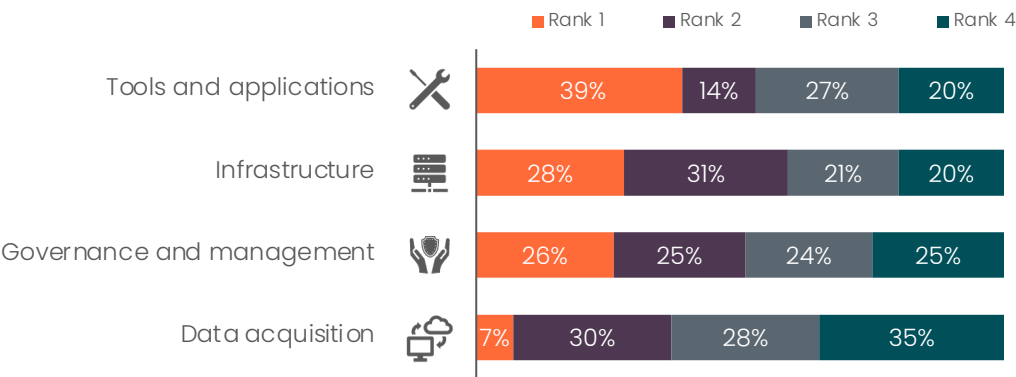Source: HFS-Syniti research study on data strategy in 2021

Given this situation, most companies feel the need to invest more in tools and applications along with data infrastructure as starting points in their data management journey, highlighted in Exhibit 6.

Most companies focus their data strategy-related investments on tools and applications

Q: What are the investment priorities for data management, including data inventory management, global master, and meta data management (continuous data quality, data governance)?

	Rank 1	Rank 2	Rank 3	Rank 4
Tools and applications	39%	14%	27%	20%
Infrastructure	28%	31%	21%	20%
Governance and management	26%	25%	24%	25%
Data acquisition	7%	30%	28%	35%

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

Investment priorities in data management will change rapidly over the next two years to drive business outcomes

For the majority of companies today, data management's value stays in the IT departments, regarded mainly as a technical exercise. However, this will drop to only a quarter of enterprises in two years with the application of data to more value-added activities like customer service, supply chain, marketing, digital transformation, innovation, growth, and global business services.

This shift underscores how enterprise data management is becoming a platform to drive business outcomes aligned with overall enterprise objectives, such as competitive advantage, revenue, profitability, and growth. From a tools and infrastructure standpoint today, the top three investment areas related to data management are:

• Data integration, including enterprise resource planning (ERP) and application migration (42%),

• Process automation (42%), and

• Data visualization (41%).

In two years, companies will also invest more in:

• Security and data protection (50%),

• Support of AI and automated machine learning (41%), and

• Advanced analytics and predictive modeling (40%).

The evolution in investment priorities reinforces the urgent need for companies to implement a strong data management strategy and robust underlying data infrastructure, thus enabling the value-added activities and processes that drive and deliver positive business outcomes. We see the trend continuing for the next three to five years with increasingly rapid maturity.

Moreover, hybrid-cloud/multi-cloud, cybersecurity, and blockchain are the most-used technologies in conjunction with data management-related investments to significantly enhance data's value in an enterprise. Again, all technologies that underpin a robust infrastructure that allows an enterprise to deploy data management at scale will be at the forefront of investment.

The intersection of data management with supply chain activities becomes critical to the extended enterprise's expanding role in future ecosystem

development as supply chain management evolves to a networked function from a legacy linear process.

As data becomes a company's most compelling asset, platforms and tools to support its use and application to the business become mission critical.

Data management will have its challenges. Most enterprises believe they are underutilizing data resources due to poor data management (70%). These include cultural resistance to a data-driven organization, data security, C-level leadership commitment, and availability of advanced skill sets to work with data. All of these, except security, are management- and culture-focused roadblocks, emphasizing the need for education and leadership to underscore the critical importance of data and data management to a company's success.

Part 4: The Bottom Line: Do not wait to manage data effectively; it is an urgent matter that determines your survival, growth, and competitive advantage
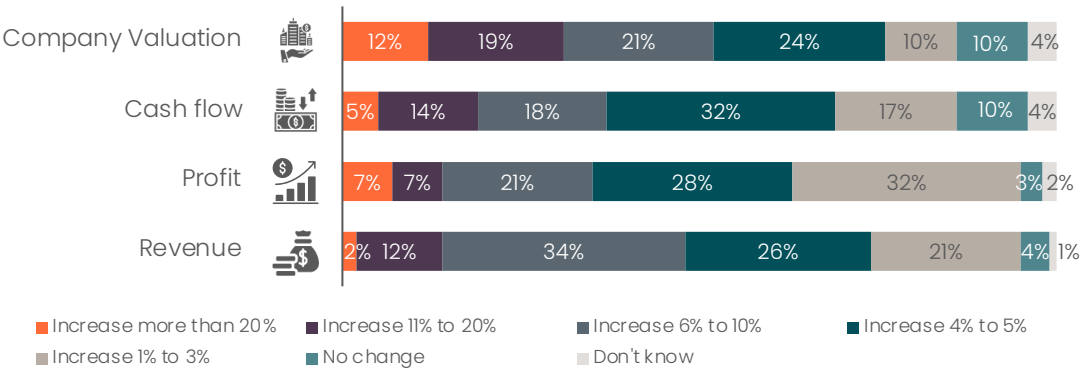
Roughly 50% of companies believe that data management will play a key role in achieving 6% plus increases in revenue over the next two years. Importantly, for the companies that have implemented

data management at scale, Exhibit 7 shows that half of this group will achieve 10% or more revenue growth – more than three times the average.

Exhibit 7

Improved data management will positively impact the financial and operational health of companies over the next two years

Q: What is the financial and operational impact over the next 24 months that considerably enhanced data quality, visibility, access, etc. through improved data management will have?

	Increase more than 20%	Increase 11% to 20%	Increase 6% to 10%	Increase 4% to 5%	Increase 1% to 3%	No change	Don't know
Company Valuation	12%	19%	21%	24%	10%	10%	4%
Cash flow	5%	14%	18%	32%	17%	10%	4%
Profit	7%	7%	21%	28%	32%	3%	2%
Revenue	2%	12%	34%	26%	21%	4%	1%

■ Increase more than 20% ■ Increase 11% to 20% ■ Increase 6% to 10% ■ Increase 4% to 5%
■ Increase 1% to 3% ■ No change □ Don't know

Sample: 100 executives across Global 2000 enterprises
Source: HFS-Syniti research study on data strategy in 2021

Also, improvement in customer experience is crucial to businesses' success in the post-pandemic era. Companies can achieve business success only when they can work with data that is complete, high quality, and trustworthy. Around 96% of the surveyed executives believe that trustworthy, high-quality data is essential to their company's abilities to grow at rates exceeding 10% annually. Let's explore the steps it takes to achieve these profit and growth aspirations.

What do we do now?

Improving working capital," "accelerating growth," and "getting data right and ensuring trust and high quality" will lead to high maturity of a company's operations, thus creating a positive impact on the company's business. Nearly 50% of companies strongly agree with the aspects shown in Exhibit 8.

Exhibit 8

A higher level of data maturity will create a more positive impact on the business

Q: What are the impact and maturity of the role and attributes of data?
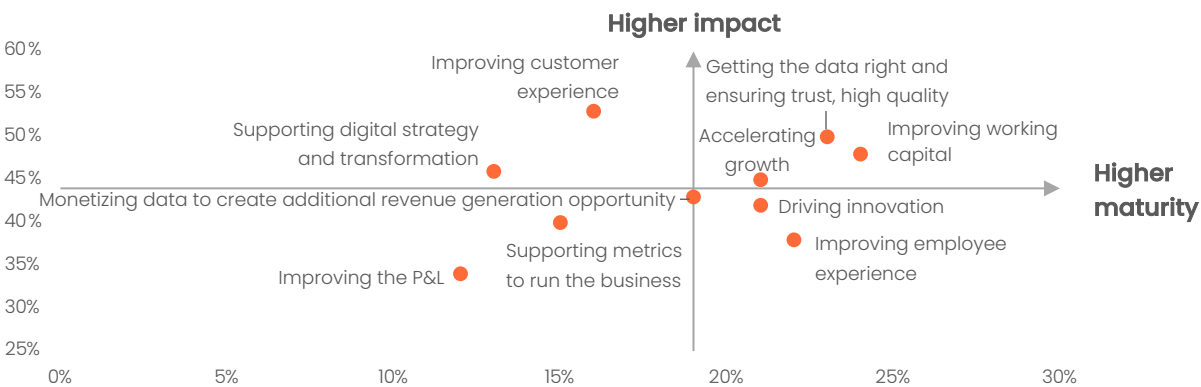
Sample: 100 executives across Global 2000 enterprises
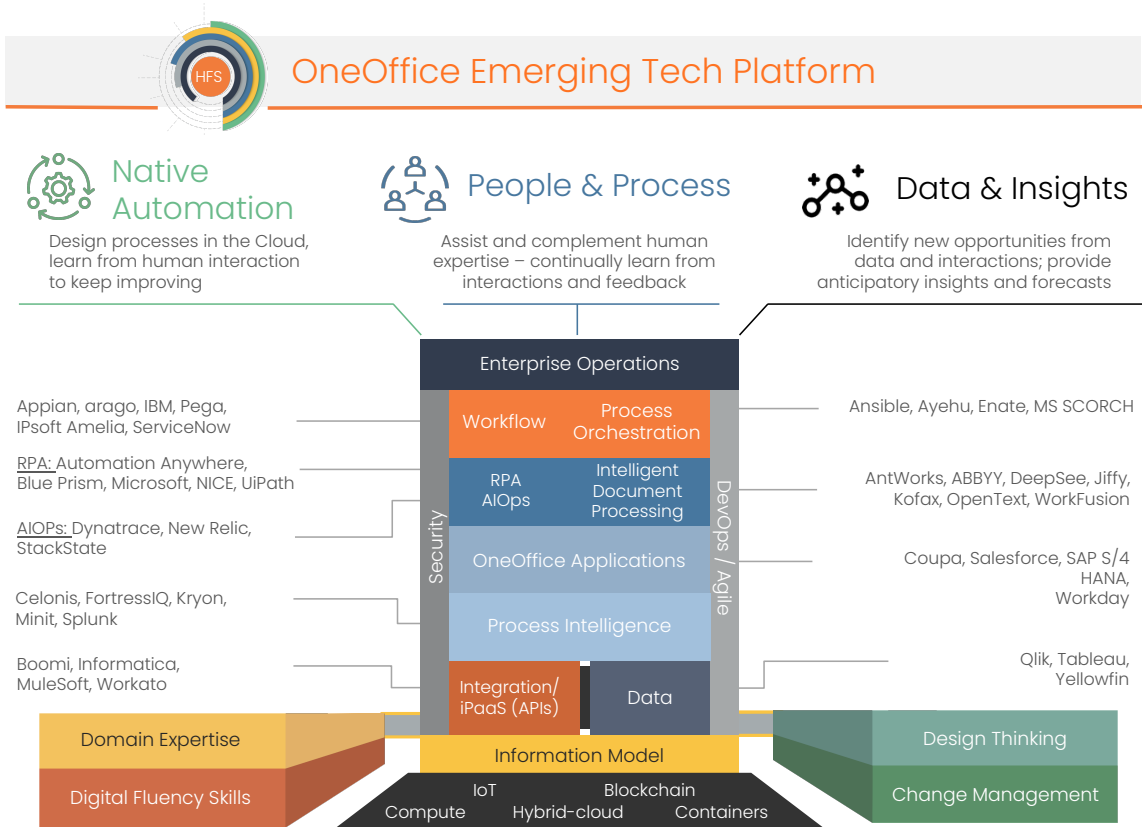Source: HFS-Syniti research study on data strategy in 2021

HFS frames the importance and maturity of data in the mindset of OneOffice. The OneOffice (see Exhibit 9) is where automation becomes a native competency, where human performance is augmented by unleashing creativity and personal interaction, and where the immediacy of data creates insights to support decision making that can make or break the firm. Data management is at the heart of the OneOffice's success.

> *OneOffice is where data drives everything. It is your strategy.*
>
> *Your core processes must be redesigned to get this data you have to have.*
>
> *They must be automated and run in the cloud. Then you can apply many flavors of AI to get data at a speed and precision you never thought possible.*
>
> **– Phil Fersht, February 2021**

Exhibit 9

Managing data and deriving insights will be key building blocks of a digital OneOffice organization

OneOffice Emerging Tech Platform

Native Automation
Design processes in the Cloud, learn from human interaction to keep improving

People & Process
Assist and complement human expertise – continually learn from interactions and feedback

Data & Insights
Identify new opportunities from data and interactions; provide anticipatory insights and forecasts

Enterprise Operations

Workflow | Process Orchestration
RPA AIOps | Intelligent Document Processing
OneOffice Applications
Process Intelligence
Integration/ iPaaS (APIs) | Data

Security | DevOps / Agile

Appian, arago, IBM, Pega, IPsoft Amelia, ServiceNow

RPA: Automation Anywhere, Blue Prism, Microsoft, NICE, UiPath

AIOPs: Dynatrace, New Relic, StackState

Celonis, FortressIQ, Kryon, Minit, Splunk

Boomi, Informatica, MuleSoft, Workato

Ansible, Ayehu, Enate, MS SCORCH

AntWorks, ABBYY, DeepSee, Jiffy, Kofax, OpenText, WorkFusion

Coupa, Salesforce, SAP S/4 HANA, Workday

Qlik, Tableau, Yellowfin

Domain Expertise
Digital Fluency Skills

Information Model
IoT | Blockchain
Compute | Hybrid-cloud | Containers

Design Thinking
Change Management

Source: HFS Research, 2021

In taking the steps to data management maturity, we identify the following high-impact initiatives:

- **Examine technology and process**. Presently, access to the right technology, overall change, and process improvement are the top key enablers for success in data management initiatives. Given this situation, most companies feel the need to invest more in tools and applications as part of their data management strategy.

- **Strengthen the linkage between cloud, AI, and data**. Companies appear to be on the cusp of driving data deployment maturity. The future is data modernization resident in the cloud with AI applied to it.

- **Make data a first-class citizen**. We need new approaches, different sources of data, open data marketplaces, and the ability to discover new datasets that reside beyond organizational silos. Organizations must also think beyond simply moving data between platforms and instead employ technology to easily unite data and dynamically and intelligently harmonize it.

- **Treat data like an asset rather than letting it be the exhaust of automation**. When we start treating data as an asset, it gets much more focus and investment and becomes a primary driver of success rather than an afterthought.

- **Elevate data management as a critical part of enterprise AI architecture**. Companies can no longer ignore a comprehensive data management strategy if they plan to survive and grow profitably.

HFS Research authors

Phil Fersht | CEO and Chief Analyst

Phil Fersht is a world-renowned analyst, writer, and visionary in emerging technologies, intelligent automation and robotic process automation software, digital business services, and the transformation of enterprise operations to drive customer impact and competitive advantage.
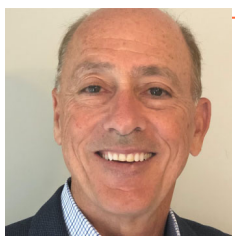
Don Ryan | Senior Vice President

Don Ryan joined HFS Research in August 2020 as Senior Vice President of Research and Consulting. His recent role was as Director for global research and thought leadership for business and outsourcing services, digital technology, and AI deployment at KPMG LLC. Don brings a broad background in forecasting technology trends, quantifying the market impact of brand experience/ customer loyalty and analyzing the changing nature of business operating models. At HFS Don will lead large research-based advisory engagements and continue his long-standing coverage of technology, media & telecom vertical as well as enterprise application platforms and ecosystems.

Ramanan Rajagopalan | Consulting Director

Ramanan Rajagopalan works on consulting projects across various technologies and industries in the role of consulting director at HFS. He has over 19 years of experience in the industry, spanning strategy consulting, business development, and market research. Ram has worked with leading IT service providers worldwide. Ram has master's in electrical engineering from University of Alabama in Huntsville, USA, and has certification in Business Analytics and Intelligence from IIM Bangalore. Ram loves jogging, reading nonfiction books and traveling to places that house buildings with ancient architecture.

Acknowledgment

A special thanks to the Syniti team for their valuable inputs and feedback throughout the research and publication of this report.

About Syniti

Syniti solves enterprises' most complex data challenges to create unique value and advantages for leading organizations worldwide. As a trusted leader in Enterprise Data Management, companies rely on Syniti to help them use their data to bring products to market faster, eliminate inefficiencies, increase profitability, accelerate time-to-value for Mergers, Acquisitions and Divestitures, and power new AI/ML initiatives. Syniti is a preferred data solution used by the world's top system integrators, and a portfolio company of BridgeGrowth Partners LLC. Headquartered in Boston, Massachusetts with offices in more than 25 countries around the world, Syniti operates across all regions and industry verticals.

To learn more visit www.syniti.com and follow us on Twitter and on LinkedIn.

HFS Research

About HFS Research: Insight, Inspiration, Impact

HFS is a unique analyst organization that combines deep visionary expertise with rapid demand side analysis of the Global 2000. Its outlook for the future is admired across the global technology and business operations industries. Its analysts are respected for their no-nonsense insights based on demand side data and engagements with industry practioners.

HFS Research introduced the world to terms such as "RPA" (Robotic Process Automation) in 2012 and more recently, the HFS OneOffice™. The HFS mission is to provide visionary insight into the major innovations impacting business operations such as Automation, Artificial Intelligence, Blockchain, Internet of Things, Digital Business Models and Smart Analytics.

Read more about HFS and our initiatives on www.HFSresearch.com or follow @HFSResearch.