



**DAT
CON**

DATA READINESS
CONDITION INDEX

Financial Services: DATCON 4

An Industry Primed for Optimization

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Executive Summary

> DATCON stands for **DATA** readiness **CON**dition (DATCON)

The goal of the DATCON index is to expose the strengths, opportunities, and data competency for a given industry, specifically as it relates to managing, analyzing, leveraging, and capitalizing on data. This project is designed to analyze various industries regarding their own Dataspheres and levels of data management, usage, leadership, and monetization capabilities (see “Methodology” for more details).

Figure 1



Source: IDC's Data Age 2025 study, sponsored by Seagate

The financial services industry, made up of banking, insurance, and securities, is at DATCON 4 representing an industry that is well into an advanced data-readiness condition (Figure 1). The industry leads in

some areas of digital transformation, executing well on many DATCON assessment vectors, and has a good pulse on how to leverage data to its fullest extent. There is still room for optimization, however.

The following are some of the key findings earning the financial services industry a DATCON score of 3.3:

➤ IT investment by the financial services industry is strong. Customer-facing portions of their businesses must be pristine, convenient, and fast. For example, trading firms demand the fastest transactions to capitalize on market dynamics, earning millions of dollars if transaction timings are met. Retail banking markets depend on building relationships with the customer. Insurance companies compete on convenience of policy originations and simplicity of claims. Hence, financial services firms invest aggressively in IT, expecting the returns to pay for themselves. However, this doesn't mean CFOs at financial services firms aren't concerned about cost.

“ We have to bring the TCO down, that was the understanding, at the volume we anticipated and projected. We all have these wonderful technologies, but what are we going to do with owning that data? ”

- VP of IT,
Fortune 50 Financial Services Firm

➤ The financial services industry has well-established practices within each sub-industry — meaning that they exist in a homogenous business landscape where there is data management synergy and

consistency across companies in the sub-industry. These types of environments enable templated infrastructure maps from which to leverage, as well as learning from and collaboration with peers.

➤ The financial Datasphere is one of the slowest-growing industries. Overall data is expected to grow 10% more slowly than other industries. There is growth in various

types of important data; for example, much of IoT-driven data is growing quickly in the insurance industry, resulting in growth of small packets of data.

“ We have interesting IoT initiatives in terms of partnering and collaborating with facility management, micro payments, and car manufacturers. We currently have 25 properties, so we leverage IoT to have efficient optimization around datacenter and portfolio management. All of those are big sources of data ingest.

- VP of IT, Fortune 50 Financial Services Firm

➤ As one might suspect, given the sensitivity to speed and convenience, the financial services industry is investing heavily in its ability to manage real-time data and

transactions. Investments in edge computing and AI stand out as focus areas to drive real-time interactions as much as possible.

➤ Across the board, the financial industry is laser-focused on fraud reduction, an immediate boon to the bottom line for every 1% reduction. Hence, technologies such as data-driven authentication and AI can help reduce fraud, increasing customer engagement and satisfaction as well as corporate profitability.

“ We leverage AI for anomaly detection, fraud detection and prevention, and in the trading space, capital markets, infrastructure product evaluations and forecasting.”

– VP of IT,
Fortune 50 Financial Services Firm



Chapter 1

Financial Services Survey Data

The financial services had a calculated DATCON overall score of 3.3, and was one of the highest scoring industries in this study. There is strong leadership at the top with sufficient budgeting to fund most areas of innovation (Figure 2).

Even robotics, in the form of robotic process automation (RPA), has a surprisingly high level of investment among those companies surveyed. RPA helps reduce costs and improves efficiency and competitiveness.

In an example of digital technology actually forcing competition with traditional financial services players, look no further than Betterment and their robo-investing capabilities. Dating back to 2008, Betterment's platform arguably started the interest in and market impact of robo-investing. Created to attract neophyte investors, Betterment now competes for more sophisticated investors through a leading-edge robo platform that supports everything from various forms of investment accounts. Most of the Wall Street investment banks have had to play catch-up to equal Betterment's robo capabilities and gain (or regain) customer share.

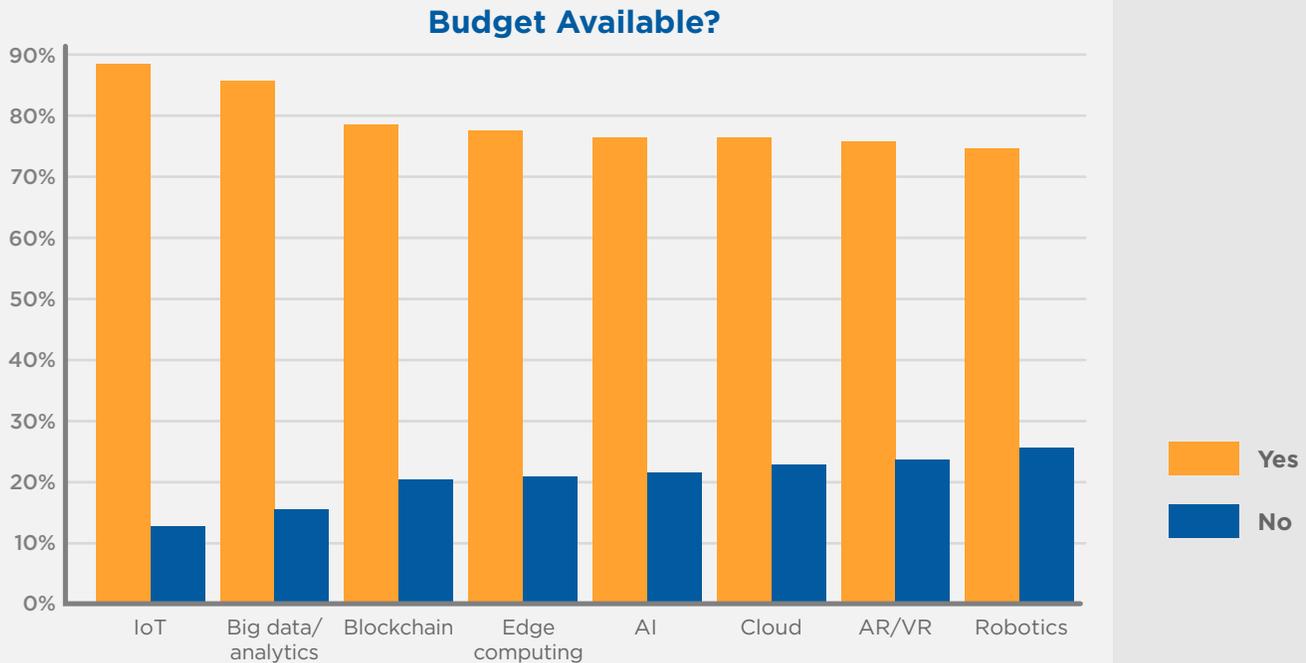
The increasing ways to engage customers also place pressure on app developers to ensure consistent experiences across the financial services industry. Trading, banking, insurance, and loans increasingly are competing online with little to no face-to-face engagement. Having the slickest user interface or best friction-free process can create momentum and migration across all customer types. These evolutions in processes and experiences



require intimate knowledge of customer preferences and behavior patterns to be successful. This insight will need to come from various types of data sources and intersect with analytics and future artificial intelligence technology.

The top two investment priorities for the financial services companies surveyed were IoT and big data and analytics. There are some differences between the sub-industries, but in reality, the financial industry as a whole is investing in almost everything (Figure 3).

Figure 3 - Financial leading and lagging investment priorities



Source: IDC's Data Age 2025 study, sponsored by Seagate

Financial services companies are leveraging the cloud as much as they can based on the inherent risk-averse nature of their businesses. However, 35% of the financial firms surveyed stated that they were storing less than 25% of their data in the cloud, with 14% currently not using the cloud at all. The result many times is

disparate data siloes where access is granted on a need-to-know basis. Understandably, certain data sets must be firewalled due to regulatory and privacy issues, but the real potential of analytics and AI will be hindered unless the siloed nature of data is somehow addressed.

← 35% of the financial firms surveyed stated that they were storing less than 25% of their data in the cloud, with **14% currently not using the cloud at all.** ←

One very large financial firm understood the need to break down data siloes and had this to say about its use of the public cloud: “We store between 5% and 10%. Data is notoriously sticky

and heavy, so there are not massive wholesale migrations that happen.” With respect to their use of cloud over the next two years, they said:

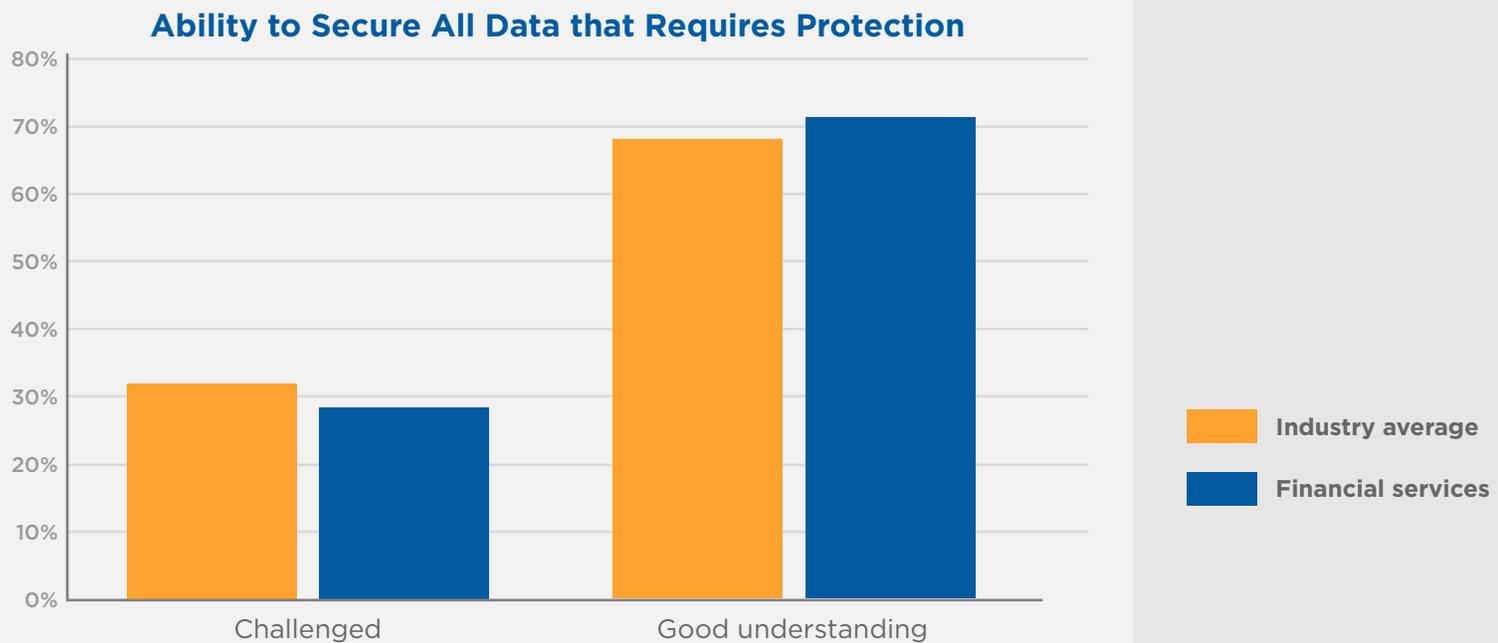
“ There is definitely interest in an increase of utilization of public cloud for those data stores as long as we’re good with governance and identify suitable candidates. It’s still not going to be customer data for the foreseeable future, but there are candidates out there ... It’s all going to end up in the public cloud, that’s a given ... It’s fair to say that it’s going to double.

– VP of IT, Fortune 50 Financial Services Firm

The issue, of course, is sensitivity of customer data. Hence, security is not only where a financial firm takes its role as a data steward seriously; it is also an area of investment. Even with such a focus, the financial firms surveyed were tough scorers on themselves,

understanding the never-ending vulnerabilities as well as the need to protect their customers’ data and answer to the multiple governing regulatory bodies in case of a data breach or some other leak (Figure 4).

Figure 4 - Securing data

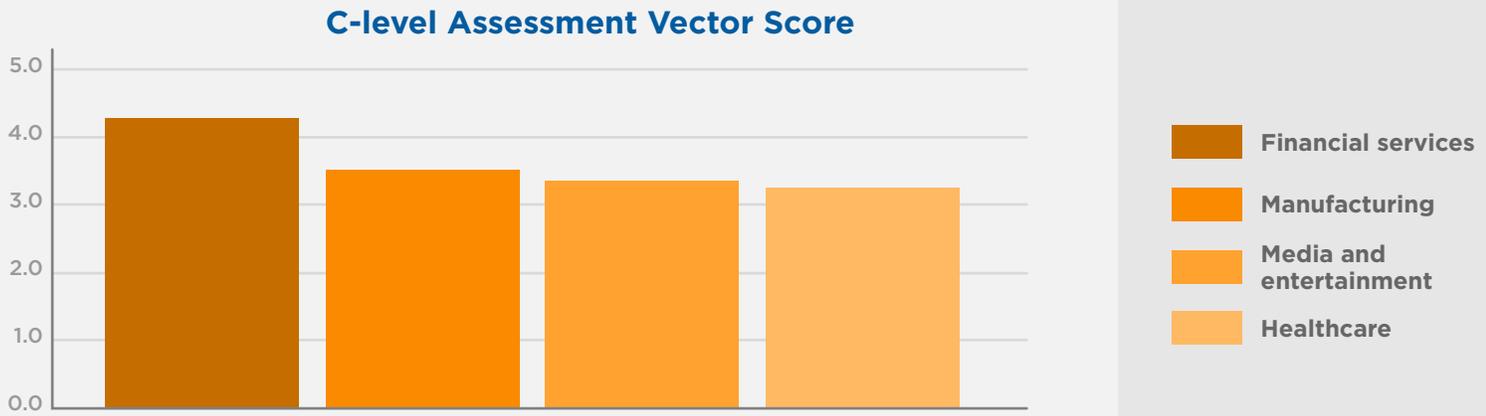


Source: IDC’s Data Age 2025 study, sponsored by Seagate

Where the financial services industry shines above most other industries is the strong leadership and vision stemming from corporate executives. The financial industry seems to be

guided from the top, which could be expected given the reach of government through regulations, along with highly publicized breaches (Figure 5).

Figure 5 - C-level participation

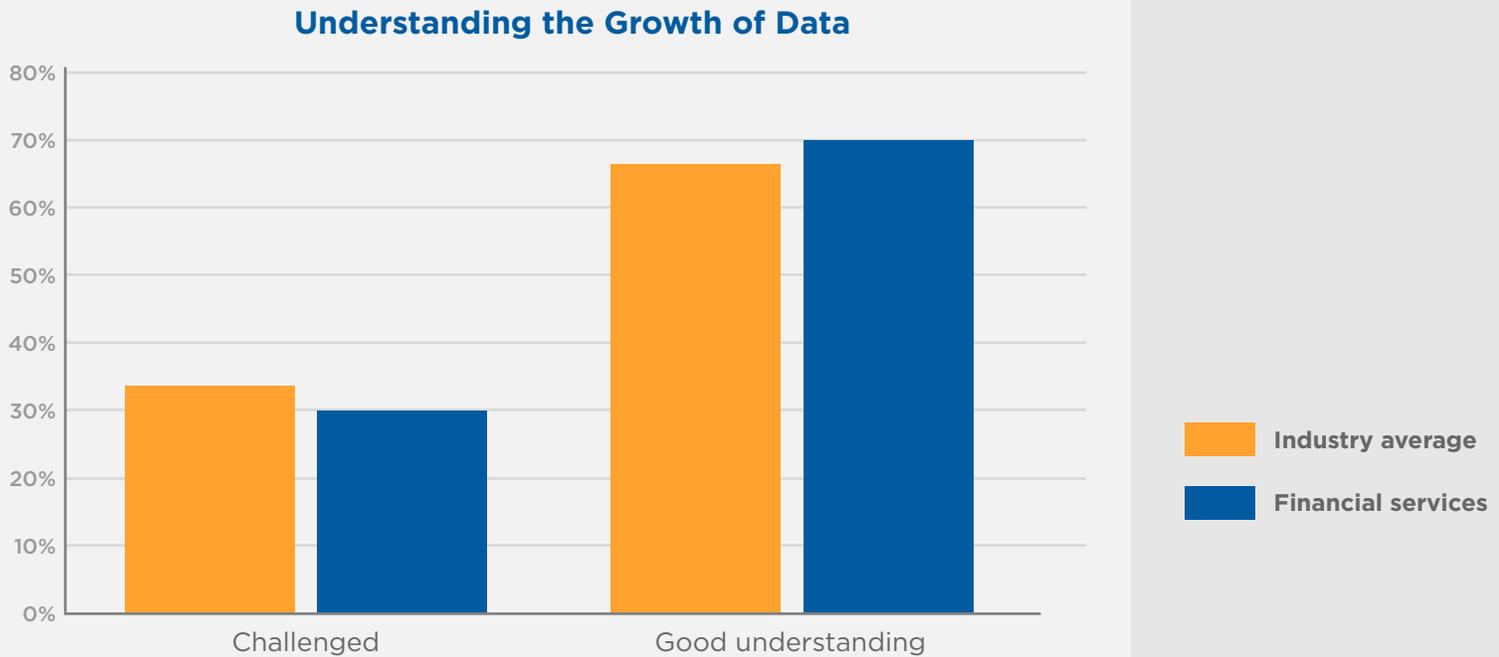


Source: IDC's Data Age 2025 study, sponsored by Seagate

Another area where financial companies surveyed found themselves ahead of the curve was in predicting and managing the growth of their own Datasphere. More than 70% stated

that they had a good understanding of their own data growth over the next two years (Figure 6).

Figure 6 - Managing data



Source: IDC's Data Age 2025 study, sponsored by Seagate

Based on the financial firms surveyed, the financial industry undoubtedly is more prepared to manage its own Datasphere and all the dynamics therein.

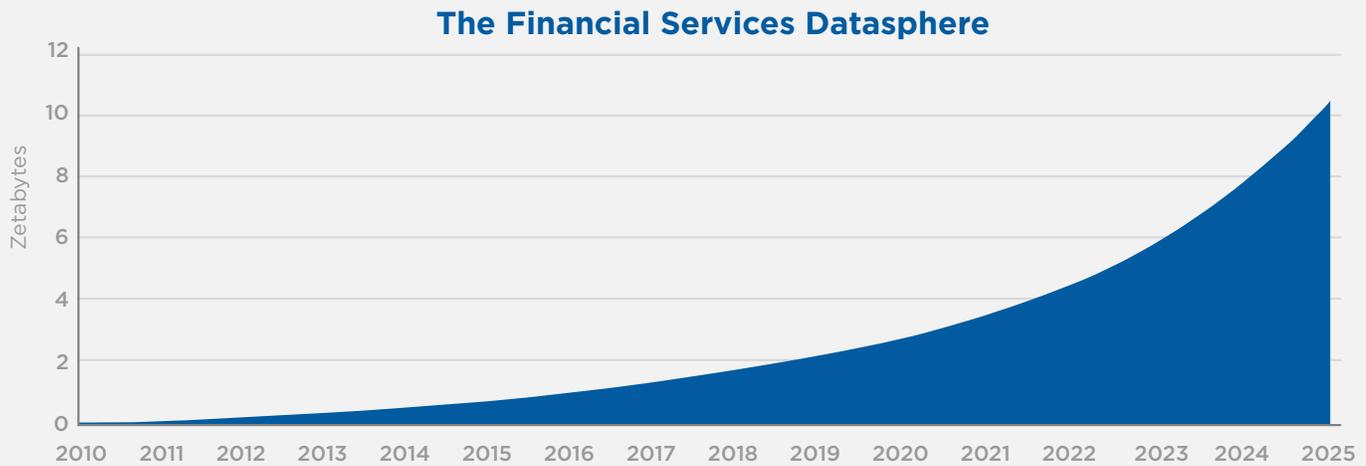
Chapter 2

Revelations on the Financial Services Datasphere

The financial services Datasphere is not one of the fastest-growing industry Dataspheres that IDC evaluated; in fact, it is one of the slowest,

albeit having to manage some of the most sensitive data that exists (Figure 7).

Figure 7 - Data growth in the financial services industry

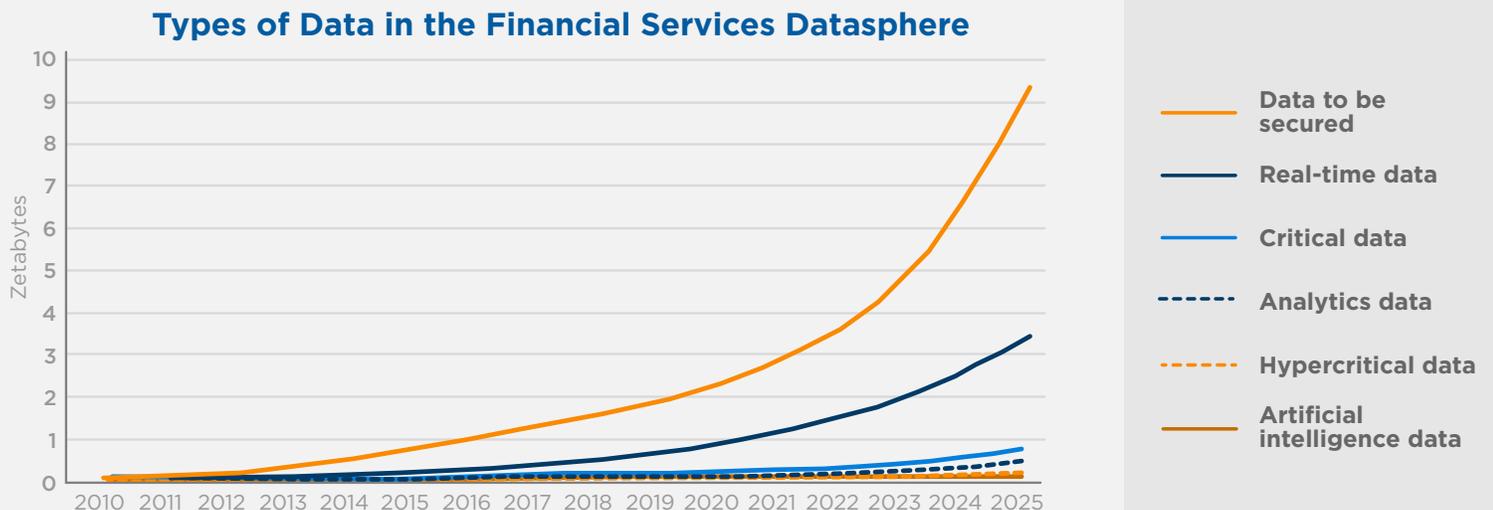


Source: IDC's Data Age 2025 study, sponsored by Seagate

Although the growth of data requiring some level of security is a large part of each industry (it is a large part of the overall global Datasphere), the financial services Datasphere ranks number one. A full 88% of the financial services Datasphere requires some level of

protection (compared to the media and entertainment Datasphere, where just 65% requires some level of security). Figure 8 illustrates the growth trajectories of various data types that are part of the financial services Datasphere.

Figure 8 - Critical data growth trends in financial services



Source: IDC's Data Age 2025 study, sponsored by Seagate

Of course, not all data grows at the same rate. The table below provides further insight into the characteristics of the data in Figure 8.

	2018–2025 CAGR	% of 2018 Financial Services Datasphere	% of 2025 Financial Services Datasphere
Data to be secured	28%	81%	88%
Real-Time data	33%	22%	31%
Critical data	28%	7%	8%
Analytics data	48%	1%	4%
Hypercritical data	44%	0%	1%
Artificial intelligence data	60%	0%	1%

Source: IDC's Data Age 2025 study, sponsored by Seagate

Nonetheless, there are institutions in the financial services industry that are recognized leaders in the aggregation, management, and monetization of their data environments.

Digital Pulse, BNY Melon's powerful big data and analytics environment, contains comprehensive trading information that is made available via an open application programming interface (API) gateway called Nexen. Originally designed to standardize the creation of new applications within the bank, the system now allows clients and developers to access about 1 billion trade data events every month, representing about \$31 trillion in financial assets under custody.

At \$2.5 trillion in assets, JPMorgan Chase is the largest bank in the U.S., second only to Bank of America in retail deposits. The bank serves about 14% of all banking consumers in the country. Its big data environment comprises around 200 petabytes of data for its 3+ billion accounts globally across 30,000+ databases. The bank collects data from every point of interaction, structured and unstructured, and uses this data to analyze everything from media outreach to fraud detection. The data even helps predict economic trends based on income and spending fluctuations in its customer base.

Big data environment comprises around 200 petabytes of data for its 3+ billion accounts globally across 30,000+ databases.

In the insurance industry, data is used, again, to manage critical areas such as fraud and catastrophe management. In a more out-of-the-box example, GEICO's now-famous gecko is a product of data and analytics at the large U.S. insurance company. Analytics run on the business's data after the introduction of what started as a one-off advertising campaign

showed an increase in business volume associated with the gecko's ads. Subsequently, the gecko has become a staple of the company's advertising.



Chapter 3

Recommendations for the Financial Services Industry

The financial services industry, while in an advanced DATCON state, still has opportunities for improving its data readiness condition.

➤ **Bring data together.**

The biggest challenge in the management and creation of an effective data environment is the siloed nature of most organizations in the financial services industry. The divided lines of business within each sub-industry have no motivation to share data among themselves or to collaborate toward an enterprise solution. Therefore, a data/analytics strategy must come from the top of the organization — the CEO and board, governed by the CIO, with the lines of business as stakeholders — and encompass the whole enterprise.

➤ **Keep compliance and security investment priorities.**

Having solved the critical challenge of data consolidation, the organization must next address security, privacy, and compliance. These three hurdles are especially important as the data needs of the institution become more sophisticated, external sources of data are introduced, and the need to reduce costs drives sensitive data hosting outside the walls of the on-premise data center. In Europe, the Revised Payment Service Directive (PSD2) regulation now requires banks to share data with third-party payment providers based on the customer's need to better conduct e-commerce. While

not global in nature, it is just a matter of time before this kind of data sharing will be required — if not by regulation, then by market drivers.

Financial services companies are stewards of some of the most sensitive and private data associated with customers. Digital trust is a complex relationship between a service provider and a customer, and it is underpinned by protecting privacy, securing data, and preventing fraud. Customer loyalty depends upon digital trust. Therefore, financial institutions must address the security and privacy of data across the enterprise.

➤ **Focus on customer experience.**

Increasingly, financial transactions happen through apps residing on various mobile platforms, especially within the banking and securities sub-industries. Managing the customer experience across all digital platforms is vital to improve customer satisfaction and maintain customer loyalty. Choosing or changing a financial services provider is easier than ever before. A misstep in customer experience (CX) via these digital mobile platforms puts longstanding customer relationships at risk.

Chapter 4

Methodology

The DATCON index is an indication of how well a particular industry is prepared to manage and capitalize on the data that is forecast to grow within that industry. Any given company within a particular industry may be above or below the calculated DATCON index for the industry.

The DATCON index is a calculated score that is synthesized across six vectors and numerous metrics that emerge from surveys, research, industry experts, and other sophisticated modeling techniques.

The six assessment vectors are:

1. Industry Datasphere

This vector score is derived by analyzing the growth trajectory of multiple types of data within IDC's Global Datasphere calculation for each industry. These types include critical and hypercritical data, data that requires various levels of security, data that is leveraged in big data

analytics, data that is leveraged in artificial intelligence applications, and real-time data.

The Datasphere is the amount of new data that is captured, created, replicated, and consumed in any given year.

2. Digital transformation and the third platform

This vector score is derived by assessing an industry's activity, initiatives, corporate sponsorships, investment, and other insights relative to a set of IDC's third-platform and innovation accelerators. These innovations include the IoT, blockchain, big data, artificial intelligence, and digital transformation progress.

Digital transformation is the application of third-platform and related technologies to fundamentally improve all aspects of society. For business, this means transforming decision-making with technology.

3. Structural score

This vector score combines various metrics related to an industry's structure (e.g., investment in edge IT,

IT spend as a percent of an industry's gross output, and leader/laggard condition).

4. C-level buy-in

This vector scores the involvement of a company's C-suite in sponsoring, leading, and budgeting for the various technologies across multiple metrics in the DATCON construct.

5. Data valuation competency

This vector assesses the skills necessary to understand the value of data, as well as to monetize it or treat it as an asset.

6. Leadership (self-scored)

This vector assesses a company's perspective on its own competency in data management, data security, data leadership and vision, and availability of skilled data workers. It also evaluates how a company sees itself compared to its peers.

All scores may be informed by IDC proprietary models, primary research, expert insight, and direct interviews with various Fortune 1000 companies. Each metric within each assessment vector is weighted relative to its importance in achieving a high level of competence. Each assessment vector is also weighted relative to its importance in achieving an optimized data-readiness state. The aggregate score becomes the DATCON level for the respective industry.

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