Tamr

Keeping Pace: How Data Disconnects are Causing Large Financial Institutions to Lag their Competitors

A Survey on the State of Data and Digital Transformation in Financial Services

Advanced or expert data management expertise is common in large U.S. financial institutions, as are digital transformation initiatives. Yet, in spite of this, more than a third (35%) who are pursuing digital transformations with less-than-anticipated impact are not expecting results for three to five years. Further, nearly half of survey respondents say they can't keep up with competitors, nor service customers in an optimal way.

That was the takeaway from a survey of 300 C-suite executives in U.S. financial institutions with revenue of $1 billion+[1] on the topic of data and digital transformation. The survey reveals a surprising disconnect between the amount of investment financial institutions are pouring into digital transformation and the realization of a payoff.

[1] The research was conducted by Censuswide online over a two-week period in November 2019, with C-level executives (titles included CIO, CTO and CMO). Censuswide abides by and employs members of the Market Research Society, which is based on the ESOMAR principles.

Despite recognizing the need to adopt a stronger data management solution to keep pace with competition, few feel positioned to meet demands. Forty-one percent (41%) agreed that without adopting a better data management solution in the next one to two years, their competitors will beat them. Yet only 3% have deployed what they felt was a better solution. And only half of those remaining (52%) were ready to purchase such a solution.

Meanwhile, a **JPMorgan Report in June 2021**, has estimated that Global Banks will continue to invest in efforts to transform their IT to an extent that can match or exceed IT investments by technology giants such as Google (20% of overall spending) and Amazon (12% of overall spending) (figure 1). And the role of technology is increasingly going to be a key determinant of market share winners and losers.

(figure 1, Source: Company 2020 Annual Reports, JP Morgan Global Research)

And banks are not just investing in technology, but also reorganizing how they operate with technology. For example, in December 2020, Deutsche Bank did a deep dive into their One TDI (Tech, Data & Innovation) Strategy, where they signed a strategic partnership with Google Cloud and consolidated all their technology divisions for benefits such as enhanced efficiency, elasticity and resilience; faster time to market; and access to best in class technology. As a measurement for success, they listed: retiring duplicated and outdated applications; rolling out a single source for reference data; and improving productivity through robotic process automation. As far as we know, one technology division for global banks might be a trend.

On the other hand, Deloitte in their 2021 Banking and Capital Markets Outlook noted that COVID-19 not only accelerated digital adoption, but it has also been a litmus test for banks' digital infrastructures. Institutions that made strategic investments in technology came out stronger, but laggards may still be able to leapfrog if they take swift action to accelerate tech modernization. Across the board, digital inertia has faded, and more banks are pursuing technology-driven transformation, especially to core systems.

This ebook will dig into the details of our findings. We'll analyze what's behind the lack of data readiness, why it matters so much, and what financial institutions are seeking in a data solution.

Finally, you'll learn how front-runner financial institutions are solving the problem by applying digital transformation thinking to the new data management required.

Digital Transformation: Desired, Deployed and Determined

Perhaps not surprisingly, the survey found that the desire--and willingness to invest in--digital transformation is nearly universal in large financial institutions, with the main drivers keeping up with/staying ahead of competitors (47%) and moving faster (45%). Only 1% of those surveyed CxOs were not pursuing digital transformation.

Definitions of "digital transformation" are all over the map. Generally agreed is that it's the process of using fast-moving technologies to create new business models, become more competitive, and provide dramatically more efficient, effective and personalized service of customers. All in the quest to generate more revenue or revenue-equivalents (e.g., votes, donations or members). "Fast-moving technologies" include cloud, mobile, agile software development (DevOps, APIs) and AI/ML-powered analytics.

Financial services institutions are applying digital transformations to many business opportunities:

- Streamlining strategic business processes such as reference data management, Customer360 programs, onboarding, and procurement/sourcing.

- **Responding to changing audit requirements** and **Know-Your-Customer/** Know-Your-Vendor demands, driven by regulations such as the Bank Secrecy Act/Anti-Money Laundering regulations (BSA/AML) in the U.S., POCA 2002/SOCPA 2005 and MLR 2017 in the U.K., and similar laws worldwide.

- Capitalizing on industry changes, such as the narrowing settlement windows that come with new payment rails like **The Clearing House's RTP Network** (U.S.) and **Faster Payments** (U.K.); the global growth of open banking; and evolving systems interoperability with standards such as **ISO 20022**.

Data is at the heart of moving faster in financial services—from intellectual property (proprietary trading algorithms and models) to transactional and customer data stored in structured, legacy databases to real-time data from enterprise, public and **external** data sources. Heavily siloed and sometimes petabytes of it, data is the engine of digital transformation.

FOMO,[2] meet FODR

However, the survey suggests that data and data management are drags on digital transformation.

Sixty-nine percent **(69%)** say data is very important to digital transformation efforts. Yet 63% of those that report that their data is insufficiently supporting their efforts say it's because their data is too vast to analyze.

Fifty-eight percent **(58%)** of those engaged in a digital transformation initiative say leveraging data is vital to the future success of the business. In fact, 28% identify unreliable data as a motivator for digital transformation, with 16% describing their data as disorganized **(9%)** or unusable **(7%)**. This despite the fact that 93% of respondents report having either advanced or expert data management expertise.

[2] Fear of Missing Out
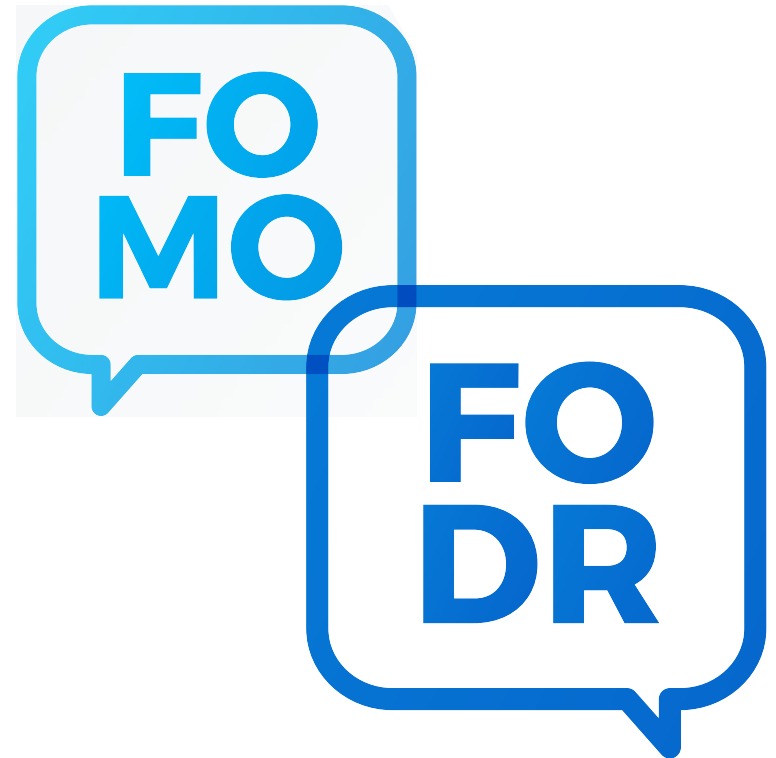
Nearly a quarter of respondents are dissatisfied with their methods for managing data velocity, volume and variety. Common obstacles include data volume **(51%)**, data management methods unaligned with digital transformation initiatives **(44%)**, outdated data management methods **(40%)**, data variety problems **(36%)** and data velocity problems **(29%)**.

The survey suggests that "fear of data readiness" (FODR) may be constraining how fast and confidently institutions feel they are able to move with their digital transformations (likely increasing FOMO).

What's Missing

To better contribute to the success of their digital transformations, respondents agreed that their data must be in the following state:

- Accurate, complete and credible (64%)
- Enables clear insights into informed decision-making across the business (64%)
- Accessible and brought together from key systems (61%)
- The primary driver in making us a data-driven organization (58%)

The biggest weaknesses cited were:

- 75% can't keep up with constant data changes over time.
- 55% of those reporting non-scalable data management practices say they are choking on too much data.

Other areas of weakness included:

- Speed to insight (cited by 54%)
- Unifying hundreds or even thousands of data sources from across the organization (47%)
- Labor-intensive processes for data wrangling (39%)

Only 2% reported no areas of data management practice as needing the most improvement toward digital transformation initiatives.
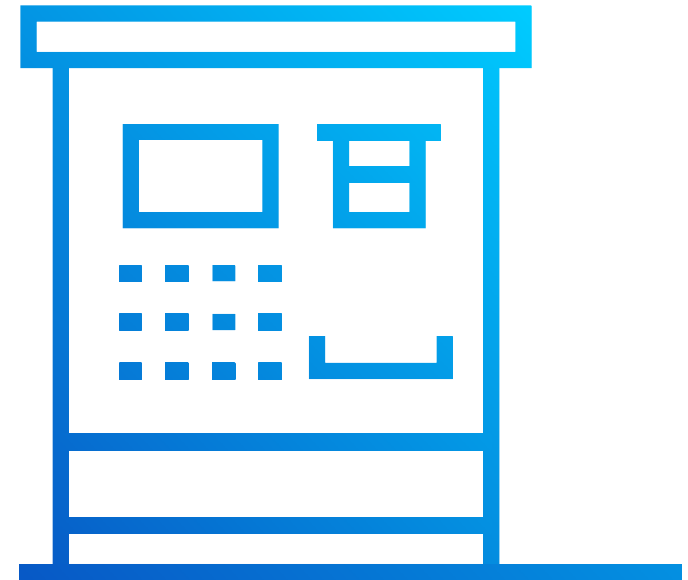
Desperately Seeking Solutions

Emerging from the survey is a clear desire for a more scalable, sustainable and robust solution to their data's volume, variety and velocity.

- Over half of respondents involved in digital transformation initiatives (52%) say they are ready to purchase a solution to assist with data volume, variety and velocity because over half (54%) have solutions that don't scale or provide a complete, accurate view of data.

- Delving deeper, 53% feel that they aren't utilizing their current data to its full potential because it's siloed throughout the organization; 51% report needing help with the constantly changing state of their data; and 46% say their digital transformations are slow and not delivering the impact they should.

- There are many bottom-line ramifications. These include spending too much time trying to integrate company data (42%), too much budget on cleaning company data (41%) and too much time trying to unify company data (39%).

In spite of all this, only 3% already have a viable solution in place. This perhaps suggests a fast-mover advantage opportunity for those who implement the right solution(s) now.

Wanted: Agile Data Management

The survey results suggest the need for an approach to data management that's as agile as the other fast-moving technologies in play.

"**DataOps**" may fit the bill. It's a more rapid, flexible and reliable approach to delivering data pipelines--one that can meet the rigorous agility demands of digital transformation. As such, DataOps is becoming a transformational part of more and more IT infrastructures. It will do for data pipelines what DevOps did for software/feature pipelines: put them in service to the business at speed, quality and efficiency levels not possible before. DataOps is already at work in other hyper-data-driven industries such as **pharmaceuticals** and **manufacturing**.

So, when should financial services organizations transition? **Now**.

According to Gartner, in the next year, the number of data and analytics experts in business units will grow at 3X the rate of experts in IT departments. In short: demand for usable data is outstripping supply. To deliver clean, unified and current data at scale, data leaders will need to change the way they operate. Clearly, something's got to give.

Today's data consumers are not only the newly hired data scientists or traditional analysts with their AI/Ml models. They're also developers embedded in businesses and individual employees on the front lines of the enterprise who have been enabled with next-gen analytic tools over the past 20 years, the result of the "democratization" of analytics in the enterprise. Not to mention applications opened up by APIs and/or new software applications or features created by DevOps.

Fueled by fast-moving technologies, **new DataOps infrastructure and behavior** can close the gap between the potential value of all that vastly siloed legacy data (data suppliers) and the consistent realization of the data's value by all the people and applications that use it (data consumers).

The challenge? The requisite speed and scale aren't possible with current solutions. Traditional Master Data Management (MDM) and ETL (Extract-Transform-Load) solutions insert cumbersome rules (interpreted by business analysts then coded by programmers) between data suppliers and data consumers. Data pipelines become data trickles.

Making It Happen

What if we applied some of those fast-moving digital-transformation technologies (such as AI/ML, cloud and APIs) to data management processes and the problems mentioned by survey respondents?

For example: by using AI/ML-powered low-latency matching, you could automatically compare new, incoming data with cleaned, "golden record" data before data consumers run off creating unnecessary or conflicting new data. This would go a long way toward both keeping up with constant data changes (a situation derailing 75% of respondents) and reducing the amount of dirty, duplicate data (which is compounded by data variety and volume.)

Look at the impact of AI/ML-powered data management on just one area of digital transformation: Know-Your-Customer programs.

Consider the possible transformational impact on helping internal auditors with the overwhelming job of analyzing data for KYC programs, which is largely self-reported data from customer onboarding questionnaires (data variety and volume). With AI/ML doing the "heavy lifting" of unifying, connecting and cleaning all the KYC customer data, auditors could have a 360-degree view of all their customers specifically tailored for auditing purposes. They can review an entire population of customers instead of a sample to improve KYC accuracy, completeness and detail. Testing theories to identify foreign correspondent banks becomes more intuitive. Saving money (and facing regulators) becomes easier. KYC, AML and sanctions-related fines exceeded $26B globally in the last decade, with hundreds of millions paid annually[3].

Imagine helping compliance officers review the snowballing number of suspicious activity reports (SARs), mandated by numerous laws. According to statistics issued by FinCEN, banks alone filed over 700,000 money-laundering-related reports in 2016, an exponentially higher number than the 93,545 filed in 2012. As the numbers continue to skyrocket, compliance professionals are forced to skip steps in clearing SARs (no review time and/or ineffective alert monitoring rules.) With an AI/ML assist, data related to transactions and SARs can be unified in one place and normalized to create a clean master data set, sortable by source, account, type of suspicious activity and other criteria. This information can be augmented with external and internal data sources to conduct more comprehensive transaction monitoring.

Of course, reaping the full, transformational benefit of AI/ML-powered data management (as in the examples above) goes beyond just slapping a hot new technology on an old problem (dirty, duplicate data). It starts with a new mindset: recognition that enterprise data is a true corporate asset with the power to differentiate the business, make it more competitive, and even directly generate new revenue streams. The care, feeding and future of this incredible, unique asset "takes a village" (not just the IT department) to deliver clean, unified and readily usable data to everyone who needs it.

Maximizing the return of enterprise data is the end-game of DataOps, which provides the right combination of **people**, **processes** (like agile data mastering) and technology (AI/Ml , cloud, a best-of-breed set of tools vs. a one-vendor solution, and others). Unlike other big technology-enabled shifts (forklift, top-down projects like ERP and Master Data Management), DataOps fits with the natural flow of your organization and how data is created and used today. DataOps can--and in fact should--be introduced into your organization gradually and strategically, and from the ground up. Fortunately, there's already a wide body of work, **experience** and (most importantly) a community behind DataOps, from **industry analysts** to technology pioneers like **Tamr** and **DataKitchen** to corporate DataOps pioneers like **Blackstone**. Ready when you are.

Challenges

> Core/legacy systems **can't scale** sufficiently
> Significant **time and effort required** to maintain infrastructure
> Long **time required** to provision environments for development and testing

Challenges

> High **error rates**; poor **refresh rates**; lack of golden source of truth
> **Hard to access** in a **timely fashion**
> Data **trapped in silos** across multiple units and hard to **integrate with external sources**

Challenges

> **Longer time to market, limited reusability** of code and software across internal teams
> **Hard to collaborate** with external partners
> **Hard to stitch data** and services **across multiple functional silos**

Cloud compute solution

> Enables **higher scalability, resilience of services and platforms** through virtualization of infrastructure
> **Reduces overhead**, enables **automation** management tasks, and allows teams to **"self-serve"**
> Enables dramatically **faster time to market**

DataOps solution

> Ensures high degree of accuracy and **single source of truth in a cost-effective manner**
> Enables **timely** and **role-appropriate access**
> Enables **a 360-degree view across the organization** to enable generation of **deeper insights**

API solution

> **Promote reusability** and **accelerate development** by enabling access to granular services
> **Reduce complexity** and enable **faster collaboration**
> Enhance customer experience by **enabling timely access** to data and services across different teams; faster time to market due to **limited cross-team coordination**

CLOUD

DATA

API[1]
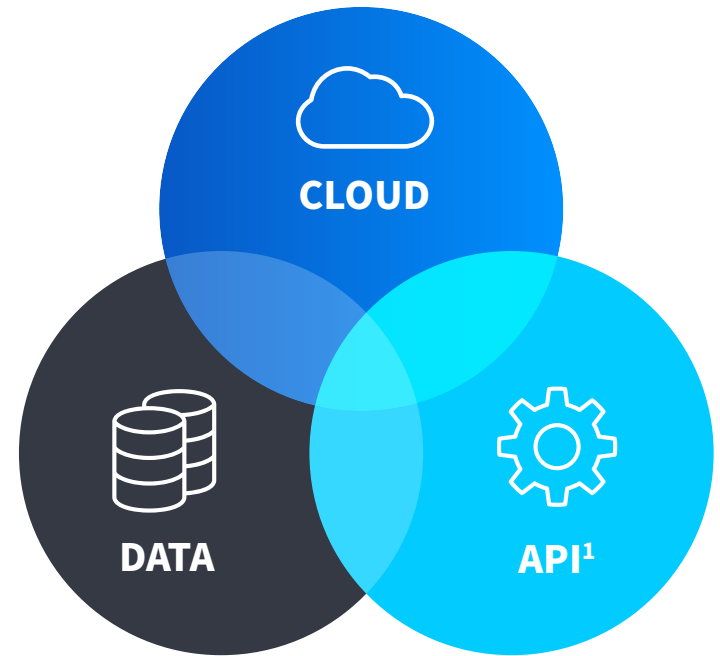
1 Source: AI bank of the future:
Can banks meet the AI challenge? Mckinsey

The Devil is in the Data

The survey confirms that financial institutions face both big challenges and big opportunities with digital transformations. Clean, unified and readily usable data is at the root of digital transformation projects, with the potential to unblock clogged data pipelines. By applying fast-moving technologies like AI/ML, cloud and APIs to overstretched data management methods, financial services institutions can overcome the "data disconnect" clearly identified in this survey, transforming their IT infrastructures and businesses.

Tamr: Accelerating Data-Driven Digital Transformations for Financial Services

By applying fast-moving technologies (AI/ML, cloud, APIs) to DataOps, Tamr speeds data pipelining and agile data mastering in financial services. Tamr's human-guided, machine-learning solution is delivering transformational outcomes for top-tier financial institutions:

- **Reference Data Management:** Tamr helps systemically important banks (SIBs) and financial institutions (SIFIs) integrate business-critical reference data from multiple external sources (e.g., legal entity databases); create clean, ready-to-use "golden records;" and speed their delivery to downstream users and applications. Data quality improves, manual effort is reduced, and the need for extensive reconfiguration of external data sources eliminated.
- **Customer360:** Tamr helped one of the largest global banks deduplicate over 40% of their customer data across geographical locations and lines of business to gain better insight into their customers.

- **Spend Analytics:** With Tamr, financial firms can consolidate, aggregate and classify their siloed spend data to understand exactly what they're buying and how to optimize procurement policies, saving millions or more dollars annually. Societe Generale Group's Sourcing Division **uses** Tamr to optimize spending visibility while reducing costs. In 30 hours of work, the IT Sourcing team classified 75% of $12 billion Euros in spend, representing 6 million records and cut "onboarding" of a new data source online to less than a week.
- **KYC and AML Compliance**: Tamr helped one of the top Canadian banks implement a streamlined data pipeline for regular KYC matching across multiple languages and jurisdictions. This automated process achieved a 90%+ match rate for their customers against various key systems. In just over six months, the bank onboarded 35 unconnected data sources with millions of records scattered across the world to identify 325,000 clusters of customer records.
- **Risk Analytics and Trade Reconciliation:** Tamr enables financial firms to move from legacy batch processes to robust pipelines. This streamlines the automation of trade reconciliation; reduces the errors, complexity and cost of tracking down transactions; and shortens clearance and settlement cycles.

Tamr can do all the above and more. Let us help you meet your digital transformation goals. Avoid FODR and data drag. And stay ahead of the competition.

Next Steps

Stay focused on what you know will bring your enterprise the results it needs to move into a modern data management model: human-guided machine learning within a data ecosystem that drives value and increases revenue.

To learn more about how Tamr can help you create an analytics-driven organization using Agile Data Mastering, schedule a demo today.

SCHEDULE DEMO

About Us

Tamr is the leading data mastering company to accelerate data-driven business outcomes. Industry leaders like: Toyota, Societe Generale, GE, and Thomson Reuters trust Tamr to manage their enterprise data as an asset. Tamr's unique approach of using human-guided machine learning algorithms to accelerate data mastering projects lets the world's largest organizations enhance their data operations, rapidly activate latent data, and increase the velocity of business outcomes through data-driven insights. With a cofounding team led by Andy Palmer (founding CEO of Vertica) and Mike Stonebraker (Turing Award winner) and backed by investors including NEA and Google Ventures, Tamr is transforming how companies get value from their data.

To find out more, visit **tamr.com**