

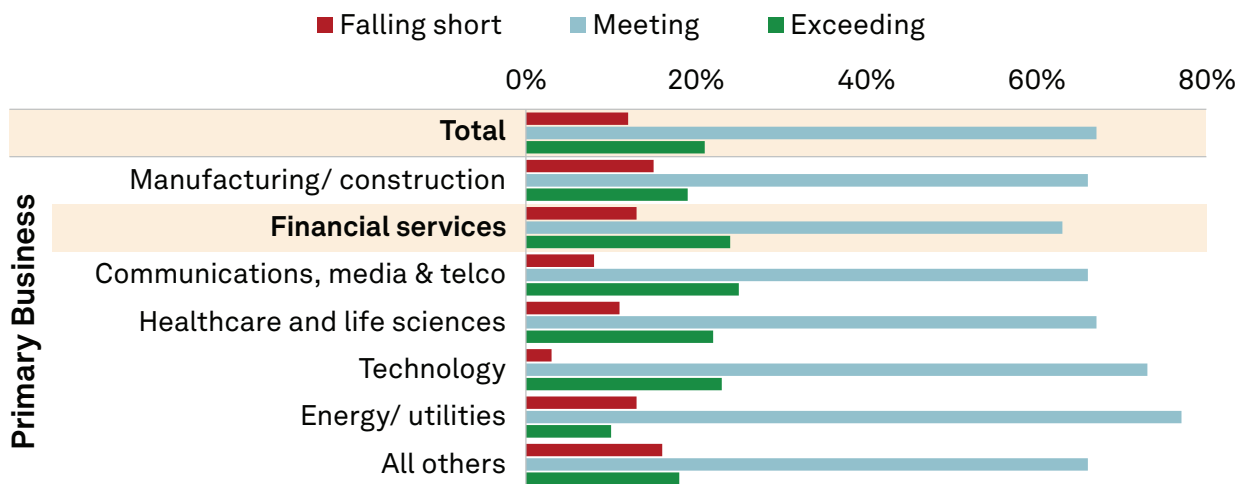
DataOps Plays Key Role in Financial Services

The 451 Take

The financial services industry is often early to adopt massive-scale data processing and management technologies, given the highly data-driven nature of the sector and intense competitive pressures. However, the highly regulated nature of the vertical and inherent sensitivity of financial data puts exceptional requirements on businesses. Data Operations (DataOps), with its emphasis on the automation of data management functions to facilitate core business objectives, is of particular interest to financial services. Challenges remain, however, in the sector’s implementation of DataOps strategy, which strives to ensure governance, reduce costs and risks, and increase productivity to drive business value of data.

While the industry generally remains ahead of the curve with data hygiene and data management practices – perhaps due to a history of data regulation – issues linger. In our State of DataOps 2022 survey, financial services respondents reported their primary data management challenges as being data security (45%), data privacy concerns (42%), regulatory compliance requirements (34%) and dealing with siloed data (32%). These concerns reflect the complexity and sensitivity of financial data. But despite data management challenges, financial services respondents are more likely to report that their organization is “exceeding expectations” with DataOps efforts, relative to industry averages.

Reported Organizational Progress Pursuing DataOps Objectives



Q: Is your company’s approach to data management (DataOps) falling short of, meeting or exceeding your expectations?

Base: All respondents (n=600); financial services respondents (n=119)

Source: 451 Research’s State of DataOps 2022 survey, commissioned by Hitachi Vantara

Financial services firms also appear to be better prepared with talent – in particular, IT engineering, data engineering and data governance – relative to industry peers, all foundational roles for DataOps. While 48% of total survey respondents reported “data engineering expertise” as a skills challenge to analytics and visualization efforts, that rate is only 36% for financial services survey participants. With a leg up on technology and staffing, the financial services vertical tends to be ahead with core data management functions. However, they are not “out of the woods” for a variety of factors: volume of data remains very high and continues to grow; financial data needs to be persisted for longer than industry averages; proliferation of dark data leads to associated compliance risks; machine learning (ML) modeling can be delayed due to bias and ethical issues; and data has frequently become multicloud in terms of architecture.

Given the specific pain points and DataOps capacity of the financial services sector, one could argue that data fabric supporting technology has become a primary interest for the right reasons, and that automation should be a key focus to achieve additional capacity and operational scale. Among financial services respondents to this survey, 81% either “agreed” or “strongly agreed” that DataOps is the accelerator for the adoption of a data fabric. Key benefits they expect from adopting a data fabric are improved data security (43%), improved trust in data accuracy (39%) and unified view of data across multiple locations (37%).

Business Impact

Financial services firms are often relatively mature in DataOps functions but still have room to grow. With fewer leadership and data management staffing challenges than adjacent industries, the financial services sector is well-positioned to utilize technology. However, challenges remain: data volume, velocity and variety, as well as complexity of operations and lack of data literacy in non-data team roles can mean that a large portion of data goes underutilized in analytics projects.

Risk-related financial services pain points such as data security, data privacy and compliance support the need for more cohesive control of data. Data-driven regulations all essentially mandate full control of enterprise data. While no stranger to regulation, the financial services vertical can struggle with challenges of data scale, speed, silos and sprawl, compounding security and privacy challenges.

Financial services firms can leverage DataOps and data fabrics to potentially speed the development and deployment cycle for ML models. ML models developed by financial services firms take somewhat longer to deploy into production compared to industry averages, often due to ethics and bias concerns. Consistent and automated data management, facilitated by DataOps methods, can form the foundation for transparency, auditability and repeatability. Data fabric architecture can allow quicker development and deployment, as well as ease vendor lock-in concerns.

Data fabric adoption in the financial services sector is happening as a complement to DataOps. Today, 29% of financial services respondents report their organization has a data fabric in use, and another 36% have a data fabric in proof-of-concept or pilot stage. A majority report that DataOps is an accelerator for the adoption of a data fabric.

Looking Ahead

The data challenges of scale, speed, sensitivity and complexity will only continue to intensify for modern financial firms as they adapt to new sources of information, new regulatory requirements, and the relentless pressure to deliver relevant and responsive customer experiences amid competitive pressures. While financial services businesses are often ahead of their non-financial peers in data management practices, that doesn't mean they can rest. Opportunity and reward come with risk. The financial services sector is understandably fraught with data that is ripe for adversarial threats, yet a misstep or miscalculation in something such as fraud detection can result in denial of critical services to a legitimate customer or harsh regulatory penalties. It is little surprise that this sector broadly desires a more unified view of the sprawling enterprise data estate, as well as supporting technology that can facilitate ongoing initiatives such as machine learning.

For financial services, DataOps and data fabric concepts appear to go together. With data fabric as a supporting technology for a DataOps approach, this sector hopes to achieve key benefits of data security, data accuracy and unified data view. By equipping the organization to have universal visibility and control of data, the promise of DataOps and data fabric is to ensure that data remains accounted for and secure while enabling use cases where formerly underutilized data may be leveraged for business value.

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