Survey report by Finextra Research,
in association with Cloudera
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CLOUDERA

TURNING AI POTENTIAL INTO ADVANTAGE: HOW FINANCIAL SERVICES INSTITUTIONS ARE SCALING AI

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Foreword

Abhas Ricky,
Chief Strategy Officer, Cloudera

AI is no longer an emerging technology looming on the horizon; it is now a fundamental driver of transformation across the financial services industry. Over the past several years, the question for leaders has shifted from, "Will AI have an impact on my business?" to, "How can AI be deployed at scale to create tangible value?" This report, based on a global survey of senior industry executives, provides a comprehensive look at the current state of AI adoption and the critical factors influencing its success.

What we found is a clear implementation gap. While many firms have moved beyond initial proofs-of-concept, a significant portion are struggling to fully integrate AI into their core operations. This is often due to persistent challenges like data security concerns, data silos, and the complexity of managing hybrid cloud environments. For executives, this is not just a technical problem — it's a strategic risk. The firms that successfully bridge this gap by building on a foundation of unified data governance and secure, flexible infrastructure will be the ones that make data and AI their competitive advantage.

The insights within this report are designed to help you navigate this complex landscape. We explore not only the maturity of AI adoption, but also the strategic decisions around infrastructure and vendor partnerships that will define success in the years to come. Ultimately, this is a moment of reckoning for the financial services industry: firms must successfully capitalise on the promise of AI by ensuring its successful, secure, and strategic implementation, or risk obsolescence.

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02

Methodology

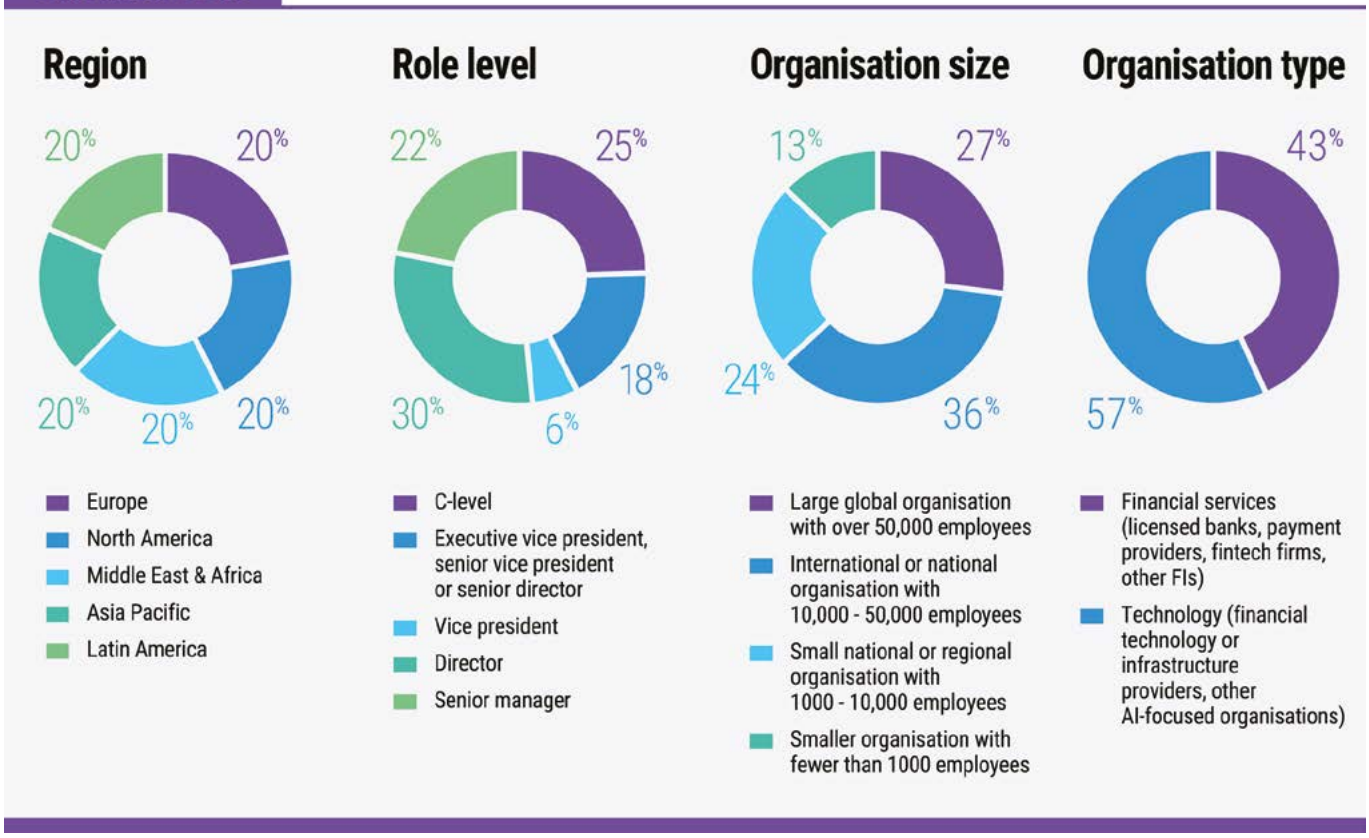
Finextra Research, commissioned by Cloudera, conducted a global survey of 155 respondents in August 2025 across Europe, North America (NA), Middle East & Africa (MEA), Asia Pacific (APAC), and Latin America (LATAM).

Survey participants held roles with titles ranging from C-level, executive vice president, senior vice president, vice president, senior director, director, and senior manager across financial services (including licensed banks, payment providers, fintech firms, other FIs) and technology (financial technology or infrastructure providers, other AI-focused organisations). The sample included participants ranging from smaller organisations with fewer than 1000 employees to large global organisations with over 50,000 employees.

The full sample breakdowns by region, role level, organisation size, and organisation type are shown below.

All survey responses were conducted on a confidential basis.

DEMOGRAPHIC SPLITS



03

Executive insights

01 AI adoption is accelerating, but an 'implementation gap' persists

Nearly half of organisations (48%) are at an AI/ML maturity level where they have moved beyond experimentation but are not yet fully integrated, creating an 'implementation gap'. This leaves them at a disadvantage compared to the 26% that have achieved full enterprise-wide adoption, unlocking lasting competitive advantage.

02 Data security emerges as the greatest barrier to successful AI implementation

Data security concerns are the number one barrier to successful AI implementation, cited as a 'very strong barrier' by 23% of respondents. This marks a notable shift, reinforcing that AI innovation will only succeed if built on trusted, unified security frameworks that safeguard sensitive financial data.

03 Data silos are a universal roadblock

An overwhelming 97% of financial services firms report that data silos hinder their ability to build and deploy effective AI models, with large global organisations hit hardest. This structural issue confirms that no matter the scale of investment, AI cannot deliver on its promise without high-quality, integrated, and well-governed data.

04 Hybrid AI deployment is the new standard

The majority of financial services firms (62%) are now using a hybrid approach to deploy AI, with 91% globally rating it as highly valuable. This widespread adoption proves that a hybrid model — combining on-premises and on-cloud environments, is essential for managing legacy constraints, efficient scaling, and facilitating the large resources needed to train and deploy AI models. Firms that delay adoption risk higher costs, vendor lock-in, and competitive disadvantage.

05 Unified data governance becomes a non-negotiable requirement

With the rise of hybrid deployments, 84% of organisations consider a unified data governance and security framework across hybrid environments to be 'critical' or 'very important'. This is not just a technical requirement, but a business necessity for minimising risk and operational friction. A consistent framework is essential to ensure data integrity and security, which in turn builds the trust needed to accelerate AI adoption at scale.

06 AI/ML use cases are clear, shifting from proof-of-concept to real business value

AI has moved from an emerging technology to a strategic necessity, with 97% of financial services firms deploying at least one AI/ML use case. The challenge is now on where AI delivers the most impact, not just if it works — making it essential to prioritise use cases that drive resilience, regulatory confidence, and competitive differentiation.

07 Vendor and infrastructure choices will define long-term success

Enhanced data security and control drive the adoption of custom AI environments. For financial services leaders, the reality is clear: AI can only deliver its full potential when data sovereignty, privacy, and trust are guaranteed. Choosing the right vendor has become a key strategic decision, with one in four firms ranking security as their top concern when evaluating AI platform vendors. Selecting an AI platform is no longer a routine procurement task, but a decision that shapes an organisation's ability to scale AI safely and maintain a competitive edge in the next decade of financial services.

04

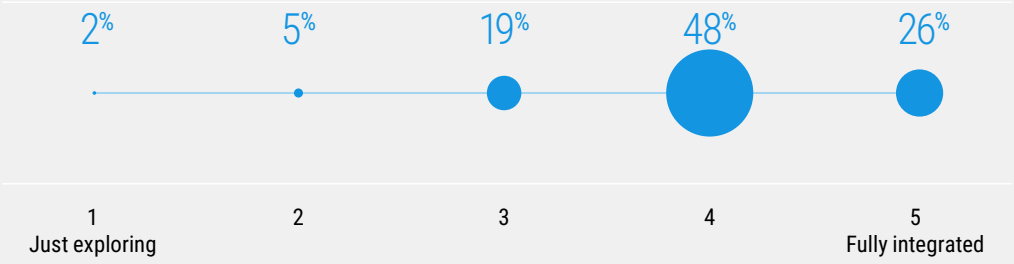
Bridging the AI implementation gap

AI has the potential to deliver transformational value in financial services — from algorithmic trading and advanced risk management to fraud detection and personalised customer experiences. However, realising this potential requires more than experimentation. Financial institutions must balance innovation against strict demands around regulatory compliance, data governance, and security. To understand what holds firms back, our survey results begin with a baseline view of current AI/ML maturity levels, before drilling down into the barriers slowing down AI progress and the operational risks undermining AI effectiveness.

TOTAL RESPONSE

How would you describe your organisation's current level of AI/ML maturity?

Rated on a scale of 1 to 5



The global maturity picture shows that AI/ML adoption is well beyond proof-of-concept. Nearly half of organisations (48%) report being at scale 4, showing AI/ML maturity has moved past experimentation but is not yet fully integrated.

04
Bridging the AI implementation gap

Just over a quarter (26%) of firms are fully integrated at scale 5. Europe leads here with 45% at scale 5, supported by the region's strong fintech ecosystem and regulatory drivers from the EU AI Act pushing firms towards full adoption. NA remains concentrated at scale 4 (39%), rather than fully integrated (35%), signalling opportunity for deeper integration. MEA (61%) and APAC (58%) also cluster at scale 4, though only 13% in each region have reached scale 5. LATAM stands out with 26% fully integrated, 13 percentage points higher than both APAC and MEA — suggesting the region is leapfrogging legacy barriers.

Fewer than one in five (18%)
financial services firms report **current AI/ML maturity** as **fully integrated.**

For leaders across the financial industry, maturity sets the stage for the next challenge: scaling AI while maintaining compliance and trust. Organisations at scale 4 risk being caught in an 'implementation gap' where they can demonstrate the value of AI but struggle to deploy it securely enterprise wide. In contrast, firms at scale 5, by integrating AI directly into their operations, decision-making, and customer experiences, position themselves for sustainable competitive advantage.

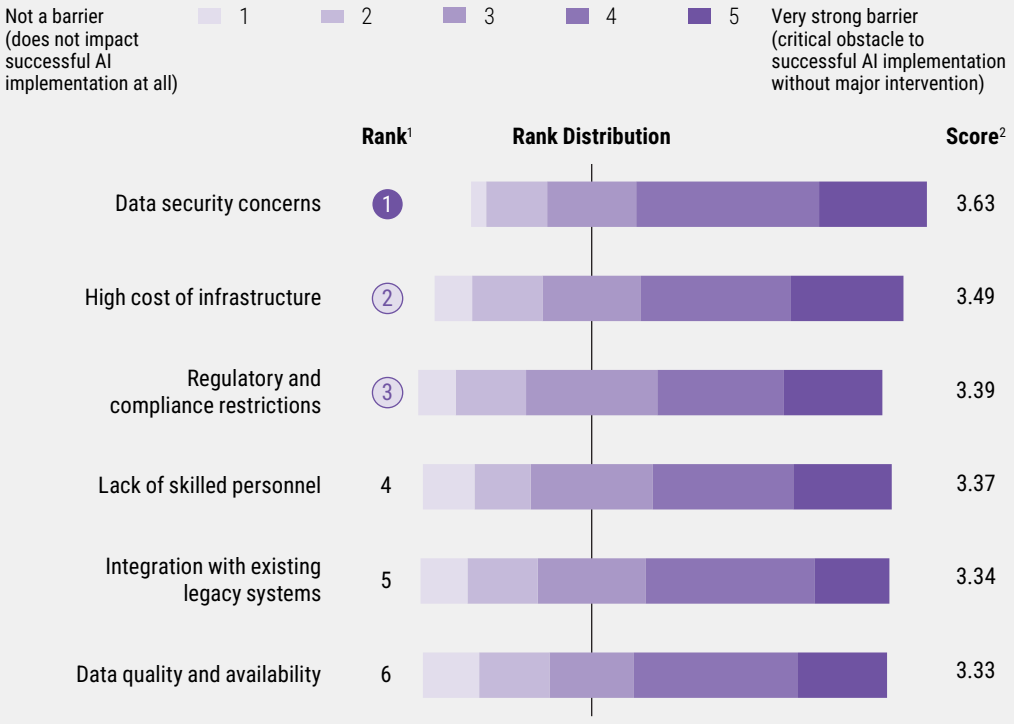
Data security ranks as the No.1 barrier to successful AI implementation

Against this backdrop, our survey results go on to highlight why many financial institutions struggle to progress beyond their current maturity level, providing insights into the scale of the barriers. Each barrier we tested ranked above the midpoint score (2.5/5). Therefore, addressing these is critical to accelerating successful AI implementation.

TOTAL RESPONSE

Rate how significant each of the following is as a barrier to successful AI implementation in your organisation

Rated on a scale of 1 to 5



[1] based on weighted average order. [2] weighted average score to 2dp

04

Bridging the AI implementation gap

Data security concerns rank highest for financial services, reflecting heightened industry awareness of privacy risks and ethical responsibilities. This marks a notable shift — while data security is typically cited as a barrier, it is often outranked by other concerns. Our survey results show firms are clear: protecting sensitive data is the greatest obstacle to successful AI implementation.

Top three AI implementation pain points:

1 Data security concerns

23% for 'very strong barrier'

2 High cost of infrastructure

23% for 'very strong barrier'

3 Regulatory & compliance restrictions

21% for 'very strong barrier'

High infrastructure costs also add to the challenge, particularly in NA (3.84). Meanwhile, AI regulation is progressing swiftly around the world, with **IAPP's global AI law and policy tracker** identifying AI legislative and policy developments in a subset of jurisdictions. Our survey results further reflect how varying approaches are creating a more fragmented regulatory landscape. Regulatory and compliance restrictions are viewed as a particular concern in Europe (3.74), where frameworks such as GDPR, PSD2, and the EU AI Act add extra considerations to the AI deployment environment. By contrast, APAC (2.87) and LATAM (3.16) report lower impact, reflecting more flexible and evolving regulatory environments.

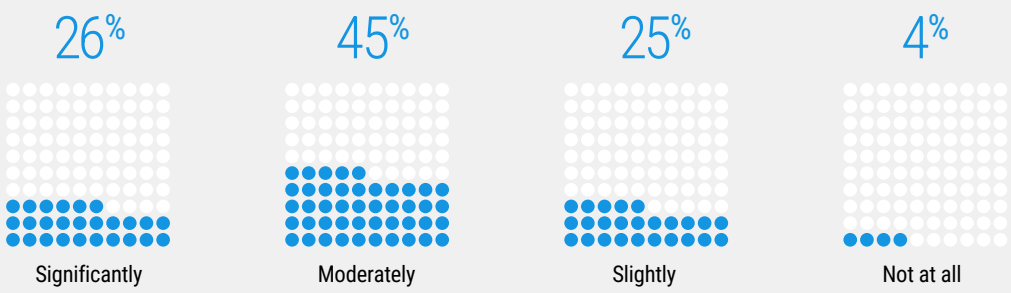
Lack of skilled personnel remains a consistent pain point globally, underscoring the high demand for skilled data scientists and AI specialists, but also how firms require AI tools that minimise the dependency on these specialised and costly skill sets. Legacy integration issues and data quality concerns follow closely — reinforcing that AI success depends on reliable, accessible, and well-governed data.

Nearly all financial services firms (97%) see data silos as a barrier to effective AI deployment

This leads directly to a key structural challenge that directly impacts AI effectiveness: data silos. An overwhelming 97% of financial services firms specifically report that data silos across their organisation hinder their ability to build and deploy effective AI models.

TOTAL RESPONSE

To what extent do data silos across your organisation hinder your ability to build and deploy effective AI models?



At the regional level, LATAM shows the highest share citing significant impact (45%), while NA is evenly split between significant (32%) and moderate (32%). Europe reports higher moderate impact (61%), where regional regulatory requirements such as GDPR and open banking regulations have already forced institutions to confront data governance challenges. In MEA, 68% cite moderate concerns, suggesting newer, modernised systems may help mitigate the issue.

Large global organisations are **hardest hit,**
with **38%** citing **significant impact,**
compared to 25% of smaller firms.

Large global organisations (over 50,000 employees) are the most affected by data silos, with 38% citing significant impact and 43% moderate impact. This reflects the complexity of managing data across multiple business lines, as the more separated the functions, the more data silos emerge. However, smaller firms (under 1000 employees) are not immune, with 25% reporting significant impact and 40% moderate impact, showing data silos challenges affect AI efforts at every scale.

04
Bridging the AI implementation gap

The message is clear for financial services — fragmented data slows effective AI deployment across regions and firm sizes. While AI/ML maturity defines the starting point, structural barriers influence how far and how quickly firms can progress. Data silos, in particular, represent the bridge between strategic intent and operational reality — no matter the scale of investment, AI cannot deliver on its promise without high-quality, integrated, and well-governed data. The real challenge now is enabling AI to work seamlessly, securely, and at-scale across organisations.

05

Hybrid AI deployment becomes critical to success

In order to effectively deploy AI, an organisation's infrastructure needs to be set up to offer the capabilities needed. Traditional on-premises data centres offer the advantage of full control, configurability, and data sovereignty; while its limitations include high up-front investment, the speed with which hardware evolves and becomes outdated, as well as limited scalability.

Public cloud deployment, on the other hand, offers high scalability and flexibility, pay-as-you-go pricing options, and managed maintenance and upgrades. However, drawbacks include data and availability concerns over the nature of shared infrastructure of a public cloud, as well as cost unpredictability due to the intensive, resource-heavy tasks required in the training and deployment of AI models.

Private cloud models and hybrid approaches are aimed at bridging the gap between the two; private clouds are entirely dedicated to one single organisation, offering enhanced privacy and security, while virtualisation allows for improved resource allocation to better facilitate complex AI training and deployment.

Similarly, hybrid approaches offer flexibility and cost-effectiveness, allowing firms to adapt to changing demands without the heavy capital expenditure of a fully on-premises setup, or the potential for vendor lock-in of a single public cloud.

05

Hybrid AI deployment becomes critical to success

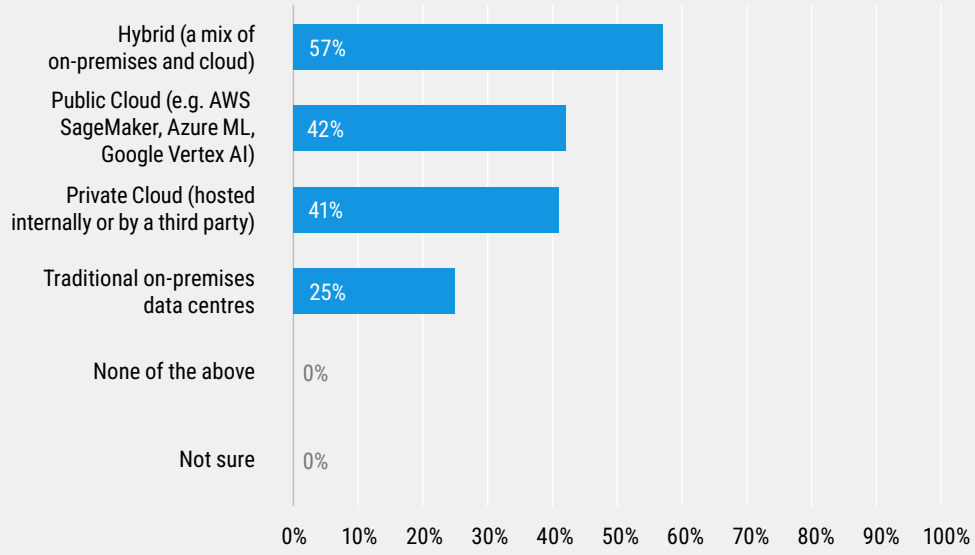
Financial services firms are increasingly leveraging a **hybrid approach to deploy AI**, with **62%** adoption.

Considering all these factors, our survey results find a diverse spread of deployment types across organisations when it comes to AI/ML deployment. Over half of the respondents (57%) state using a hybrid approach (growing to 62% for financial services firms specifically), followed by public (42%) and private (41%) cloud. One in four respondents use traditional on-premises data centres.

TOTAL RESPONSE

Which of the following AI/ML infrastructure models is your organisation currently using?

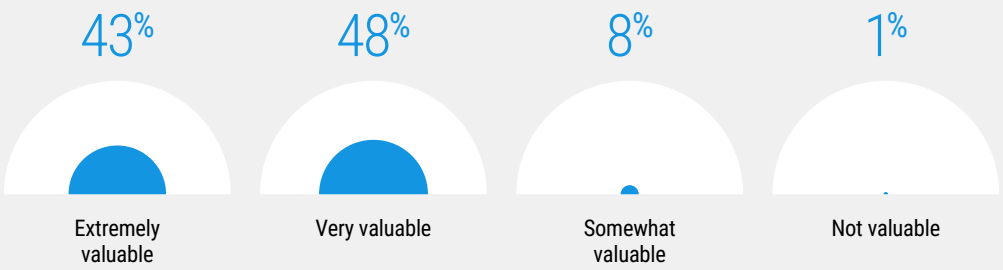
Please select all that apply



Under a regional lens, the hybrid approach leads across the board, but other variations are worth noting. NA leads on both extremes: traditional on-premises deployment grows to 45%, while the region simultaneously showcases the highest rate of public cloud deployment across all regions at (58%). The latter may not be all too surprising considering the major public cloud providers are all US-based companies.

TOTAL RESPONSE

How valuable is a hybrid AI approach, which allows you to run workloads flexibly across both on-premises and on-cloud environments using a single, unified platform?



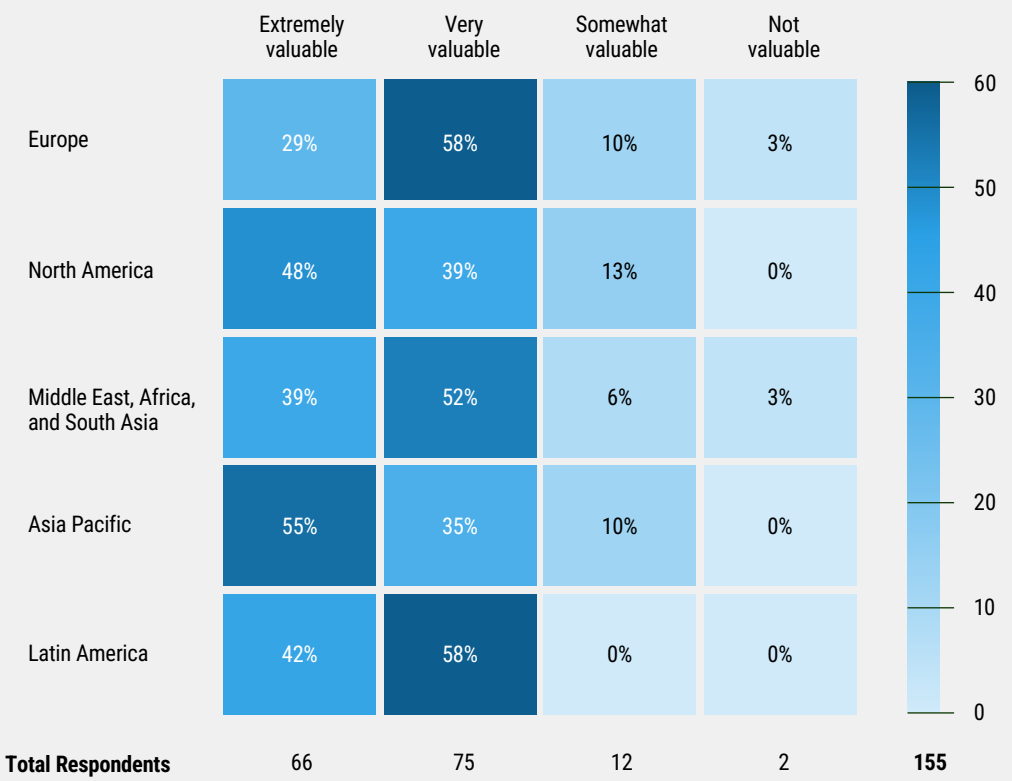
These results are further confirmed when looking specifically at hybrid AI deployment. 91% of respondents globally rate a hybrid AI approach as extremely or very valuable, proving that flexible workload deployment across on-premises and on-cloud environments is seen as essential to manage legacy constraints, scale efficiently, and facilitate the large resources needed to train and deploy AI models.

05

Hybrid AI deployment becomes critical to success

REGIONAL LEVEL

How valuable is a hybrid AI approach, which allows you to run workloads flexibly across both on-premises and on-cloud environments using a single, unified platform?



This sentiment is shared regionally, with hybrid approaches being most valued in APAC and NA. Near zero scores for 'not valuable' across the board reinforce that, today, hybrid AI deployment is considered a universal requirement in financial services.

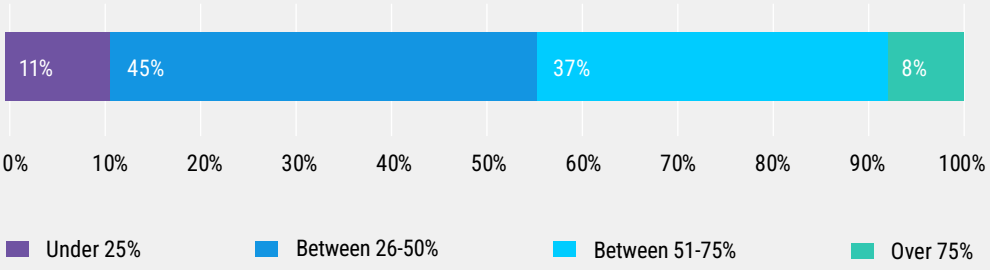
For 91% of organisations, hybrid AI deployment is crucial to success.

A unified AI data governance and security framework is pivotal for 84% of organisations

AI infrastructure is dependent on the data that runs on it. Our survey finds that the majority of organisations (45%) store between 26-50% of their data used for AI on-premises. Crucially, only 8% of organisations still store over 75% of AI data on-premises, further reflecting the ubiquity of hybrid deployments.

TOTAL RESPONSE

What percentage of your organisation's data (that would be used for AI) is currently stored on-premises?



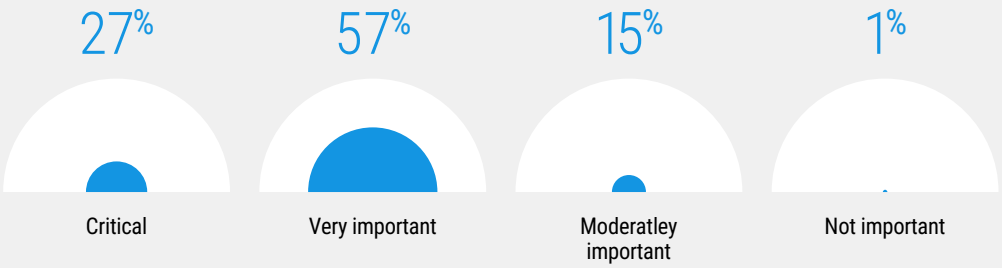
As hybrid AI deployments become the new norm, consistent data security across both on-premises and on-cloud environments become crucial. We have already seen earlier that data security is the top concern in AI implementation. Our results further show that a unified data governance and security strategy is key for organisations, with 84% of respondents rating it 'critical' or 'very important' across hybrid environments.

04

Hybrid AI deployment becomes critical to success

TOTAL RESPONSE

How critical is a unified data governance and security framework that applies consistently across your hybrid environments (on-premises and cloud)?



One in four respondents (27%) see a unified framework as non-negotiable; this response is particularly pronounced across APAC (39%) and MEA (36%). The majority of respondents (57%) view governance as 'very important', with Europe (65%) and NA (61%) leading the charge, emphasising the necessity of a consistent framework across on-premises and cloud to minimise risk and operational friction in mature AI markets.

Virtually no respondents dismiss the need for unified governance (1% selected 'not important'). As AI deployment matures and is influenced by regulatory, operational, and security factors, this only reenforces that consistent control is seen as a near universal requirement in 2025 and beyond.

Once the deployment and data questions are answered, financial organisations can focus on building the right AI use cases to create lasting efficiencies and success.

06

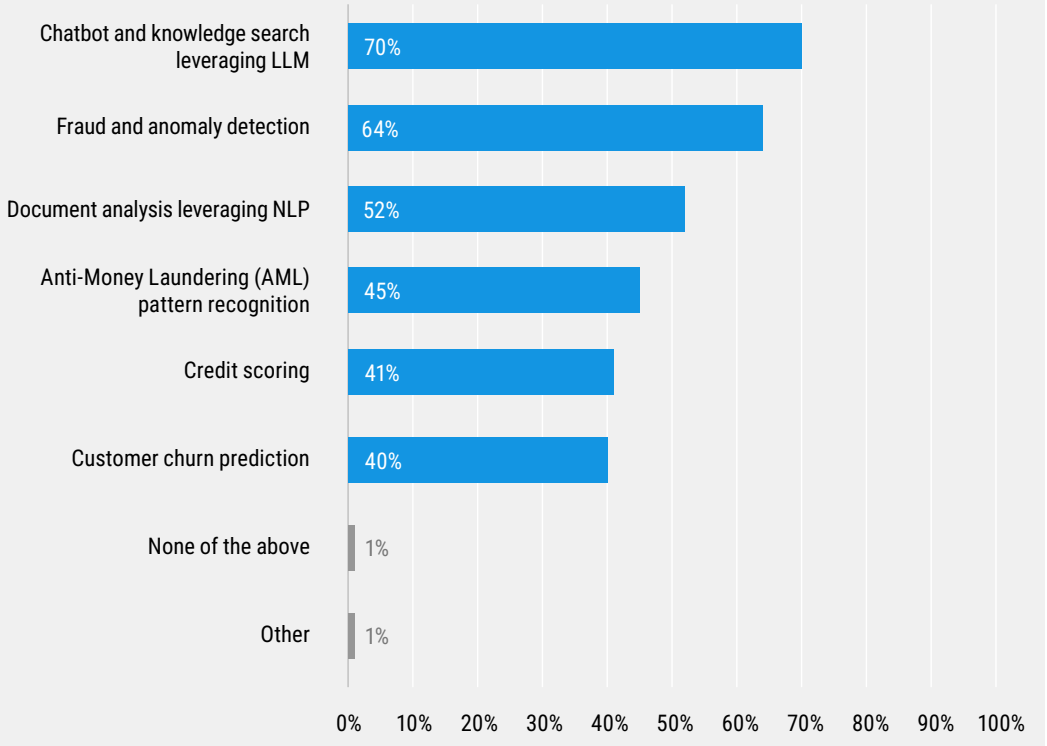
Turning AI potential into real advantage

As AI adoption grows, the focus shifts from experimentation to value realisation. Leaders across the financial industry are no longer asking whether AI works, but instead, are asking where AI delivers the most impact, why infrastructure choices matter, and how to select the right partners to ensure secure and sustainable scaling.

TOTAL RESPONSE

Which of the following AI/ML use cases are you currently deploying or actively developing?

Please select all that apply



Our survey results reflect widespread momentum of AI/ML use cases, positioning AI as a key enabler of business success.

06

Turning AI potential into real advantage

AI/ML is now a **strategic necessity,** with **97%** of financial services firms deploying **at least one use case.**

Chatbots and knowledge search leveraging LLMs lead globally (70%), with particularly strong uptake in NA and APAC (81%). This reflects both customer expectations for 24/7 digital engagement and the efficiency gains of automating frontline interactions. Fraud and anomaly detection is the second most common use case (64%), but deployment varies by region. MEA (77%) and APAC (74%) rank 20 percentage points above other regions, reflecting a growing focus on financial crime prevention as fraud threats escalate across emerging digital economies. While fraud has long been an issue in Europe and NA, it's **significantly growing in APAC**, this is reflected in our survey results.

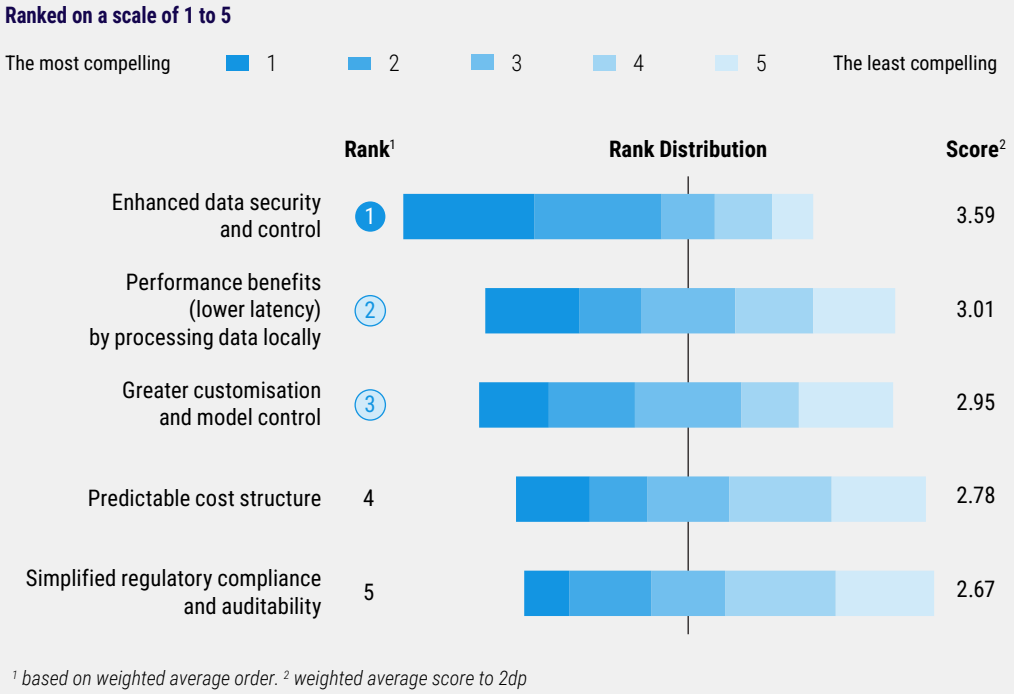
Document analysis leveraging NLP (52%) is strongest in Europe (61%), where strict compliance and reporting obligations likely drive the need for the automation of unstructured data. AML pattern recognition, credit scoring, and customer churn prediction show adoption within the 40-45% range. Whilst these use cases are seen as strategically important, they lag slightly, likely due to higher complexity, infrastructure costs, and data governance requirements.

Enhanced data security and control drives the adoption of custom AI environments

If use cases define the 'what', infrastructure decisions define the 'why'. Our survey results show that enhanced data security and control is the number one motivation for implementing customised, controlled, and secure AI environments, with MEA scoring highest here (4.03). For financial services leaders, this priority reflects a fundamental reality: financial institutions can only fully unlock AI's value when data sovereignty, privacy, and trust are assured.

TOTAL RESPONSE

Rank the following reasons for a financial institution to consider implementing a customised, controlled, and secure AI environment



[1] based on weighted average order. [2] weighted average score to 2dp

06

Turning AI potential into real advantage

Performance benefits (lower latency) by processing data locally, are globally valued, while greater customisation and model control varies by organisation size. Large global organisations (over 50,000 employees) prioritise reasons such as enhanced data security and simplified regulatory compliance given their scale and regulatory exposure. Whereas smaller firms (under 1000 employees) highlight the importance of greater customisation, as they must tailor solutions without access to large in-house teams. Predictable cost structure and simplified regulatory compliance and auditability rank lower overall, but matter most in Europe where firms must demonstrate transparent and auditable AI operations in line with strict regulations.

Top three reasons for implementing custom AI environments:

1 Data security and control

32% for 'the most compelling'

2 Performance benefits

23% for 'the most compelling'

3 Greater customisation

17% for 'the most compelling'

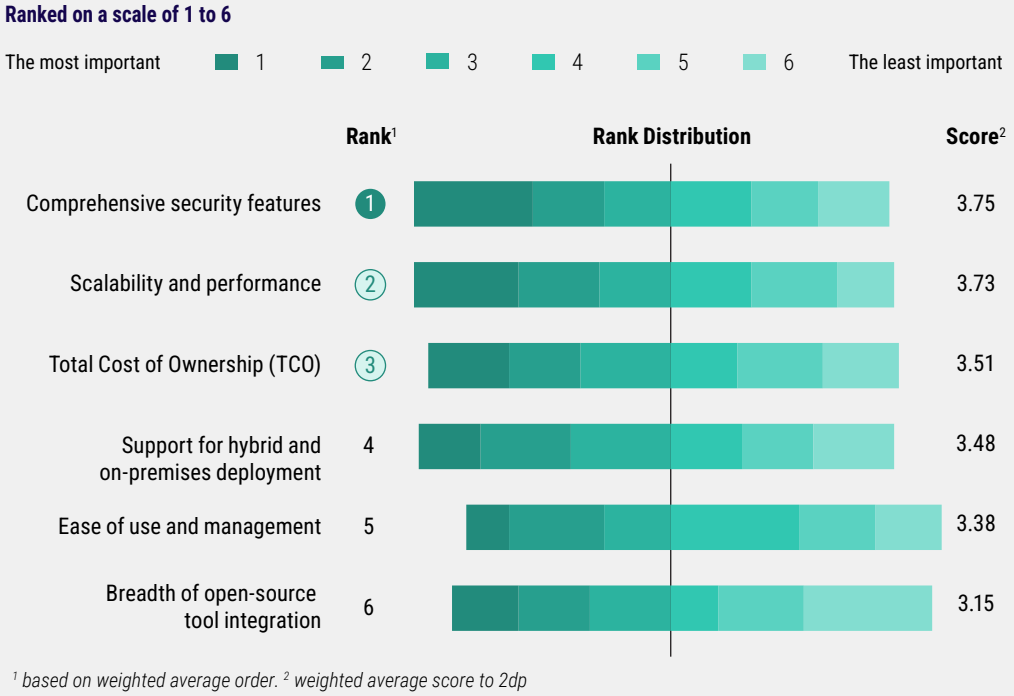
Implementing a customised, controlled, and secure AI environment is more than innovation, it is a strategic enabler — and the right infrastructure and vendor choices can transform AI potential into enterprise-wide value.

Winning with AI: How financial firms pick their partners

With AI adoption accelerating and business motivations defined, the critical next step for financial institutions is selecting the right vendors to turn AI potential into scalable, secure, and sustainable value.

TOTAL RESPONSE

Rank the following in order of importance when evaluating a vendor for an enterprise AI platform



[1] based on weighted average order. [2] weighted average score to 2dp

Our survey results show a clear hierarchy of priorities when evaluating vendors for an enterprise AI platform, with firms prioritising security above all.

06

Turning AI potential into real advantage

One in four firms rank **security** as their **top priority** when evaluating an **AI platform vendor.**

Comprehensive security features lead globally, with 25% ranking this as the most important (scale 1). This is particularly pronounced for MEA and financial services firms, where safeguarding sensitive data is non-negotiable.

Scalability and performance (22% for scale 1) follow closely, especially for LATAM, highlighting the need for enterprise platforms that can efficiently handle large AI/ML workloads. Total Cost of Ownership (17% for scale 1) is another key consideration, particularly in NA, as firms weigh long-term financial efficiency alongside technical performance.

Priorities such as support for hybrid and on-premises deployments are particularly valued across APAC, underscoring the need for flexible infrastructure balancing legacy systems with cloud scalability. Whilst breadth of open-source tool integration is critical in Europe and LATAM, reflecting interest in flexible AI integration without vendor lock-in.

In 2025 and beyond, vendor choices clearly play an increasingly important role for financial services leaders as AI use cases mature.

07

Conclusion

As AI deployment moves beyond experimentation, it has become evident that deployment and data are the crucial foundations that build AI success.

Our survey highlights that a unified, hybrid architecture provides the optimal balance of cutting-edge AI capability and the rigorous security and governance standards demanded by the financial services industry, ultimately enabling innovation without compromise.

For financial services leaders, our results reinforce the trajectory from ‘value’ to ‘action’. Capturing AI’s full potential requires deliberate infrastructure and vendor choices. The next competitive edge will come from building environments and partnerships that enable AI innovation at scale, without compromise on security.

08

About

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