Dubai Financial Services Authority

DFSA Artificial Intelligence Survey 2025

An overview of regulatory insights and trends in financial services in the DIFC

DFSA.AE

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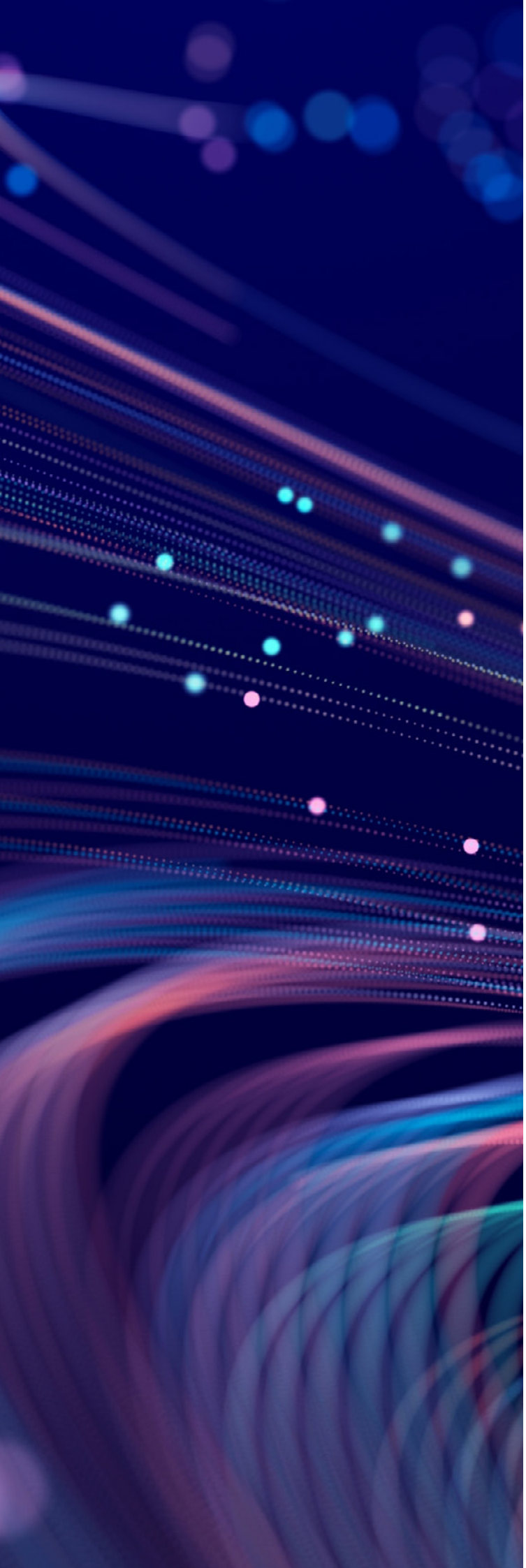

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Executive Summary

The Dubai Financial Services Authority (DFSA) conducted its second Artificial Intelligence (AI) survey in 2025, following its inaugural study in 2024. This report presents the findings from the 2025 survey with comparative insights from the 2024 edition.

The United Arab Emirates (UAE) has positioned itself as a global benchmark for AI adoption. A recent KPMG study[1] found that 97% of UAE residents now use AI, underscoring the country's leading role as an AI ecosystem hub.

The same study highlighted that 73% of UAE organisations already have policies and practices in place to govern responsible AI use. This wider national context reflects the ambition behind initiatives such as the Dubai State of AI Report 2025[2], which emphasises that "governance forms the critical first building block" of a trustworthy and resilient AI ecosystem.

Similarly, the DFSA's AI survey – based on responses from 661 Authorised Firms (firms), representing an 88% response rate – provides an insight into how AI is being adopted and governed within the financial services sector in the Dubai International Financial Centre (DIFC) – an area where risk management and accountability are paramount.

The results show that firms are primarily leveraging AI to enhance efficiency, improve performance, and strengthen data analytics capabilities. However, most applications remain focused on internal business functions, reflecting a cautious but deliberate approach to operationalising AI. A shift is now underway: more firms view AI as critical to at least one business area or has been deployed across a considerable share of their business operations, signalling a meaningful shift from exploratory testing toward embedded operational use.

Governance practices, however, continue to develop. While 60% of firms have some form of governance structure for AI, 21% still lack clear accountability or oversight mechanisms, even in cases where AI use is critical to business operations. This highlights a need for well-defined accountability and oversight frameworks to ensure the responsible and transparent use of AI.

Finally, firms are calling for greater regulatory clarity and guidance on AI governance, ethical use, and supervisory expectations. Achieving consistency and harmonisation amongst the UAE's financial regulators is a key priority to support the safe and sustainable adoption of AI across the sector.

1. Trust, attitudes and use of artificial intelligence: A global study 2025 (October 2025)
2. https://www.digitaldubai.ae/docs/default-source/publications/dubai-state-of-ai-report.pdf (April 2025)

Introduction

AI continues to play a transformative role in financial services – from risk management and compliance to customer experience and product innovation – delivering benefits to customers, firms, markets, and the broader economy. However, it can also introduce new risks and amplify existing ones. As a result, regulators have a vested interest in ensuring its safe, responsible, and well-governed adoption.

The DFSA has adopted a technology-neutral approach to regulation, focusing on the sound management of risks rather than the underlying technology itself. However, as AI adoption accelerates, it is increasingly important for regulators to monitor developments closely and assess how firms implement and govern these technologies.

This approach aligns with global regulatory efforts. For example, the Bank of England and Financial Conduct Authority's 2024 study on AI in UK financial services[3] highlighted both the opportunities and the governance challenges associated with AI integration. Similarly, Dubai's State of AI Report 2025 identifies governance as "the critical first building block" in achieving responsible and trusted AI adoption. The DFSA's work reflects these principles, supporting Dubai's strategic vision for AI leadership and the UAE's emphasis on ethical and transparent technology use.

To this end, the DFSA launched its first AI survey in July 2024, establishing a baseline view of how firms in the DIFC were adopting and governing AI – including the types of AI in use, key drivers and barriers to adoption, and existing governance arrangements. A second survey, conducted in June 2025, builds on that foundation, allowing year-on-year comparisons and providing deeper insights into evolving trends and emerging risks.

Deeper engagement

Firms' engagement has increased since 2024, with 661 firms responding to the survey in 2025, up from 544 the previous year. This represents an 88% response rate, up from 83% in 2024. We believe that this higher participation reflects both the growing interest in AI in DIFC's financial services sector and firms' willingness to share insights on their experiences and expectations.

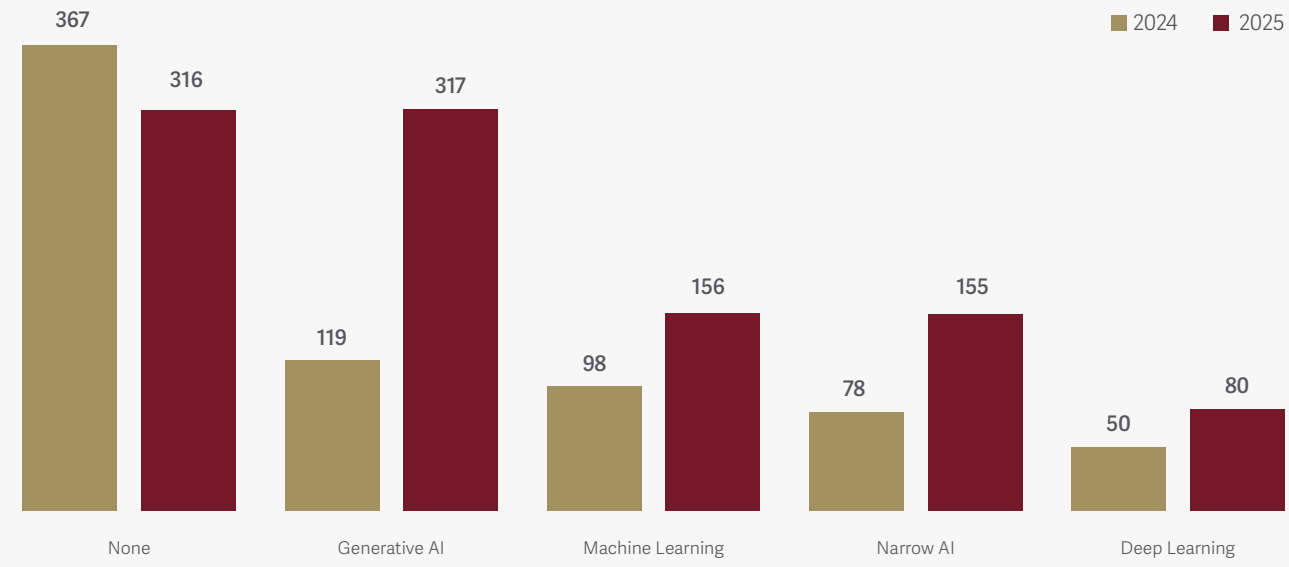
3. Artificial intelligence in UK financial services – 2024 (November 2024)

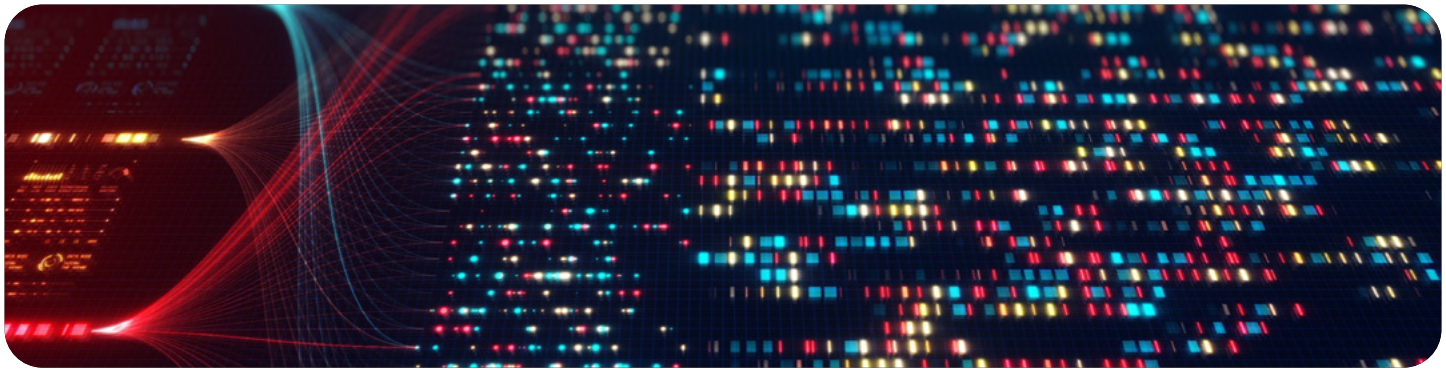
AI adoption and types of applications

AI adoption among DIFC firms rose from 33% in 2024 to 52% in 2025. This translates to 345 firms now actively using AI, compared with 177 a year earlier. The adoption of Generative AI (GenAI) saw the biggest increase, up 166%, followed by Narrow AI with 99%, while Deep Learning and Machine Learning both saw usage climb by more than 60%.

This growth broadly mirrors global trends in the financial sector, as we see GenAI becoming more accessible and serving as a catalyst for broader AI integration across business functions.

Infographic 1: AI adoption and use across DIFC firms (2024-2025)



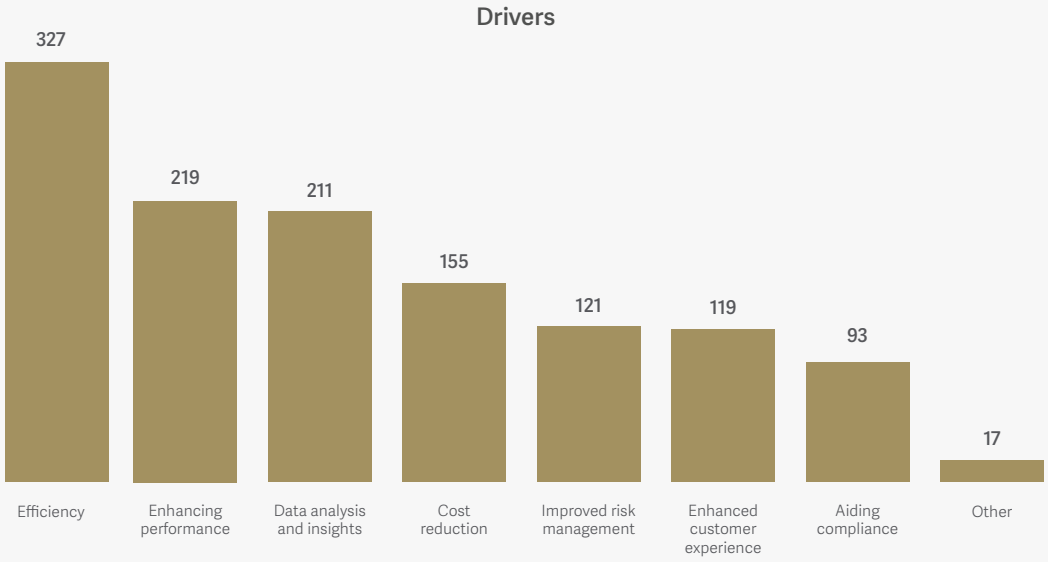


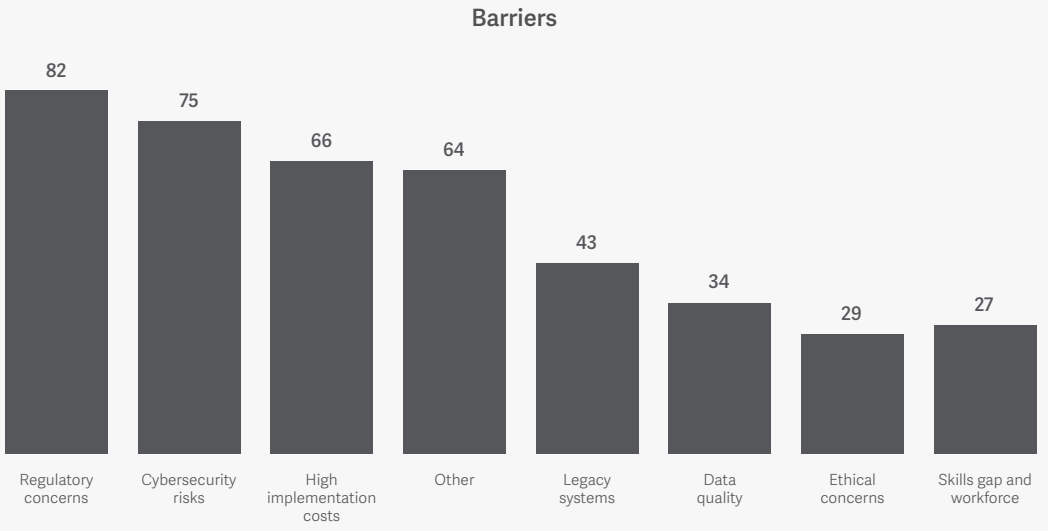
Drivers and barriers to AI adoption

The drivers of AI adoption for firms in 2025 were consistent with the 2024 findings, with efficiency gains identified as the primary benefit, followed by enhanced performance and improved data analysis capabilities. Conversely, firms cited regulatory uncertainty, cybersecurity risks, and implementation costs as the top three barriers to AI deployment – also steady from 2024.

This suggests that while adoption is accelerating, the underlying enablers and constraints remain consistent.

Infographic 2: Drivers and barriers to AI adoption (2025)



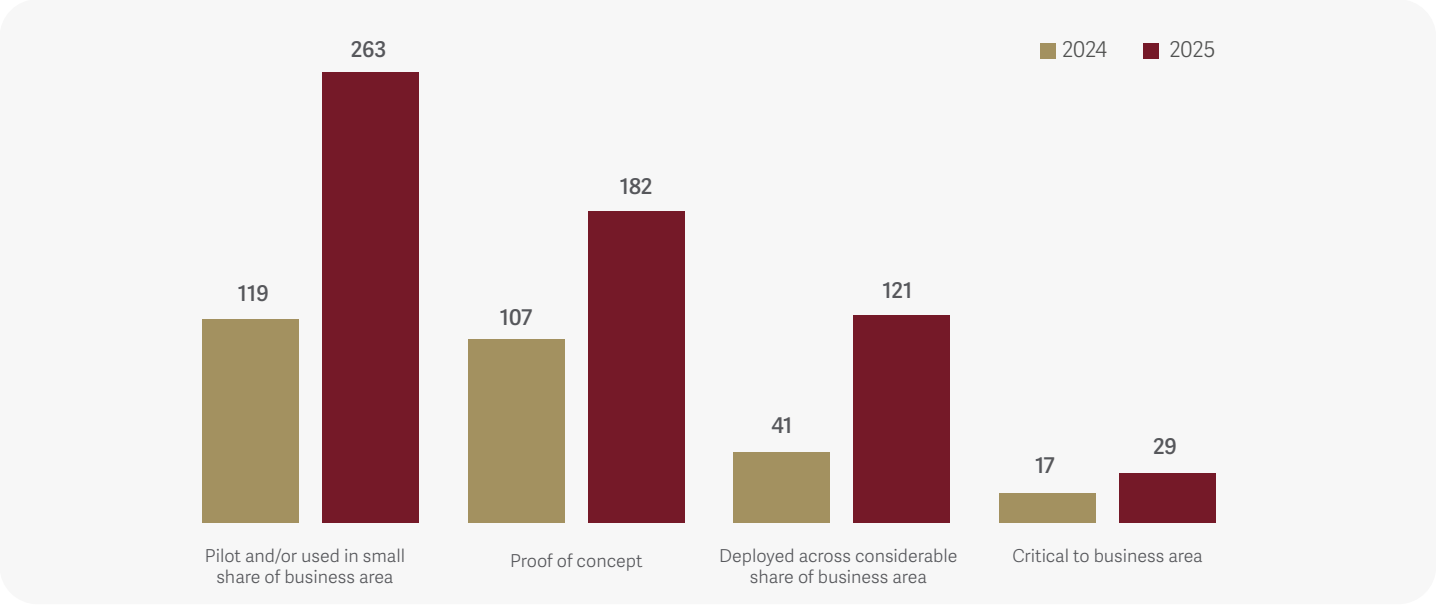


Stages of AI deployment in financial firms

Most firms remain at relatively early stages of AI deployment – focusing on proof-of-concept initiatives or pilot programmes – rather than full-scale implementation.

However, the level of maturity has continued to evolve, as many are moving from proofs of concept to live pilots. The number of firms deploying AI across a considerable share of their business operations has tripled, rising from 41 firms in 2024 to 121 in 2025. Firms identifying AI as critical to at least one business area also nearly doubled (from 17 to 29), signalling a gradual but meaningful shift from exploratory testing toward embedded operational use.

Infographic 3: Stages of AI adoption within firms (2024-2025)

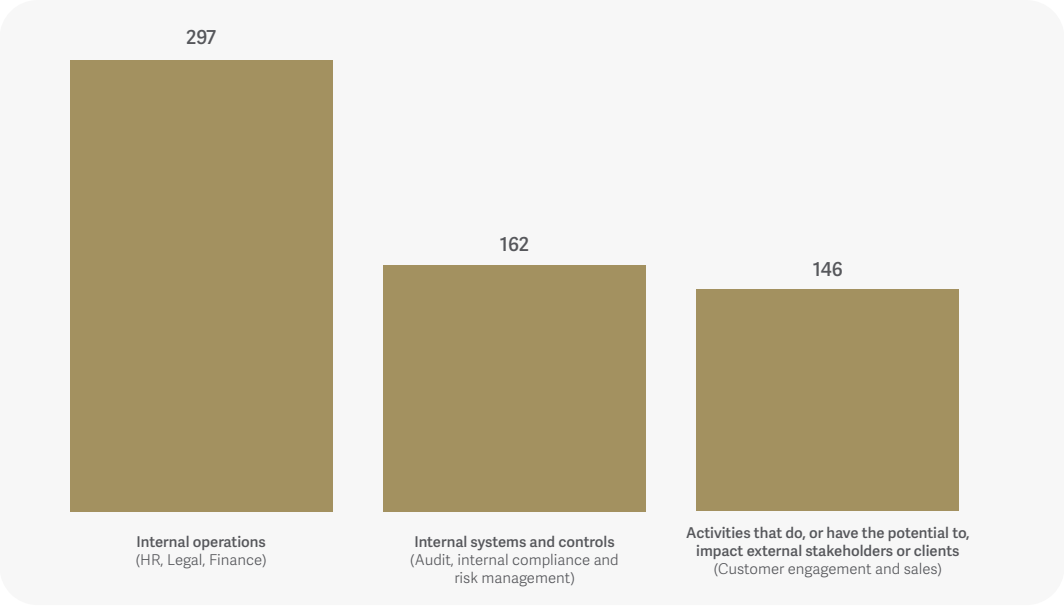


Where firms are deploying AI

The survey results also shed light on how firms are choosing to deploy AI. Consistent with trends observed by other international financial services regulators, the vast majority (79%) of AI use cases in the DIFC remain focused on internal operations – such as human resources (HR), legal, and finance – and internal systems and controls (e.g. audit, compliance, and risk management). External-facing applications – such as customer engagement and sales – remain less common, with only 109 firms (21%) reporting deployment in these areas.

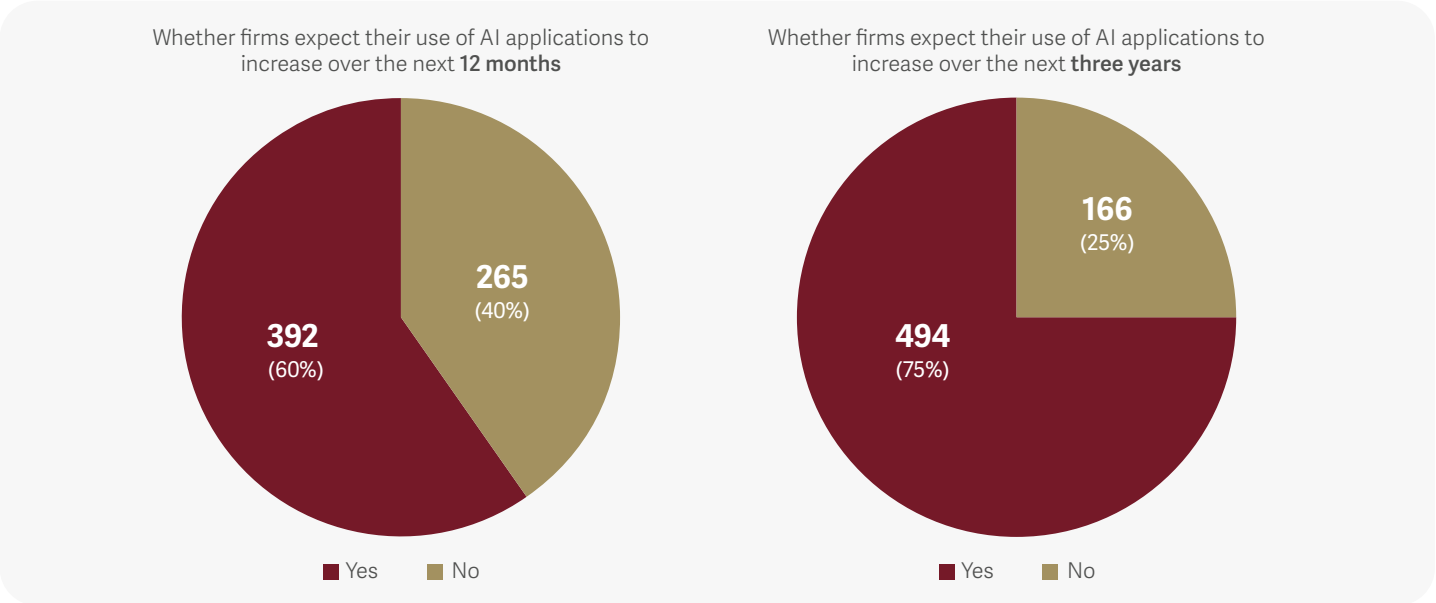
This "internal-first" approach, which mirrors most firms' current AI deployment at the proof-of-concept or pilot stage, reflects a cautious and controlled adoption strategy, with firms appearing to treat internal functions as a lower-risk environment in which to build experience, develop governance frameworks, and refine operational processes before extending AI applications into customer-facing areas.

Infographic 4: How firms are using AI (2025)



Looking ahead, firms expect this momentum to continue: 60% anticipate an increase in AI use over the next 12 months, rising to 75% over a three-year horizon.

Infographic 5: Firms' AI adoption outlook (2025)

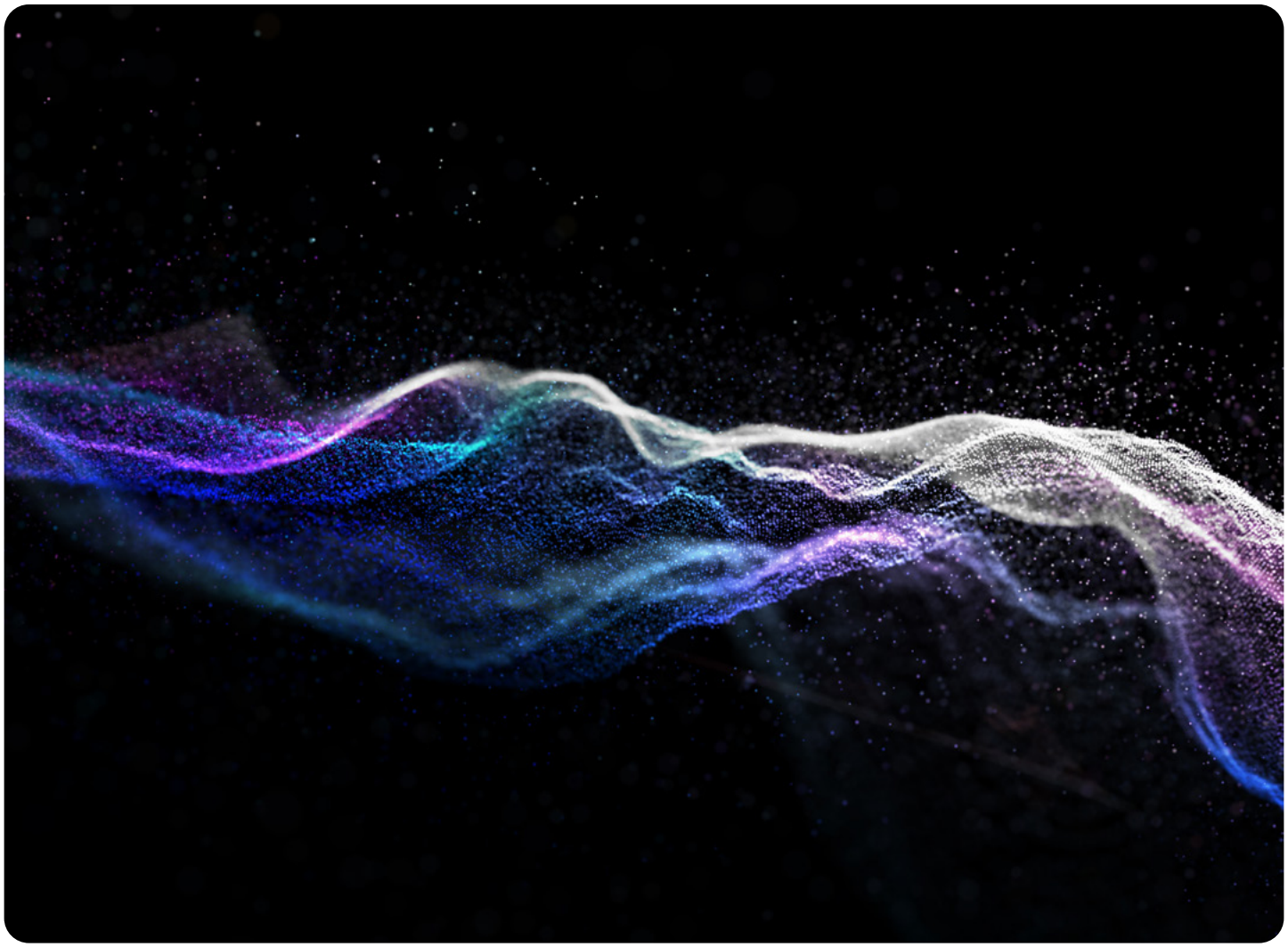


Together, these trends indicate a measured but accelerating integration of AI across firms, with clear signs of progression from experimentation to full-scale application. This evolving landscape underscores the importance of maintaining robust governance, operational resilience, data quality, and third-party risk management frameworks to ensure safe and sound deployment as AI adoption scales.

Third-party providers and cloud adoption

The majority of firms are unsurprisingly relying on third-party developers to develop and/or implement their AI applications. Sixty percent run more than 90% of their AI applications on cloud platforms, with almost all of them using a small number of major global cloud service providers, namely Amazon Web Services, Google Cloud Platform, and Microsoft Azure.

These results reflect the reality that financial institutions now operate within complex, interconnected digital ecosystems, where they often rely on a few third-party providers which dominate the hardware and AI application spaces – a theme also identified in the DFSA's Cyber and Artificial Intelligence Risk in Financial Services report[4]. Such reliance highlights structural concentration risk which may introduce significant operational vulnerabilities and heighten the risk of systemic disruptions in the event of supply chain incidents. Strengthening third-party risk management frameworks and reviewing associated controls and business continuity plans are therefore essential to addressing these vulnerabilities.



4. Cyber and Artificial Intelligence Risk in Financial Services: Strengthening Oversight Through International Dialogue (June 2025)

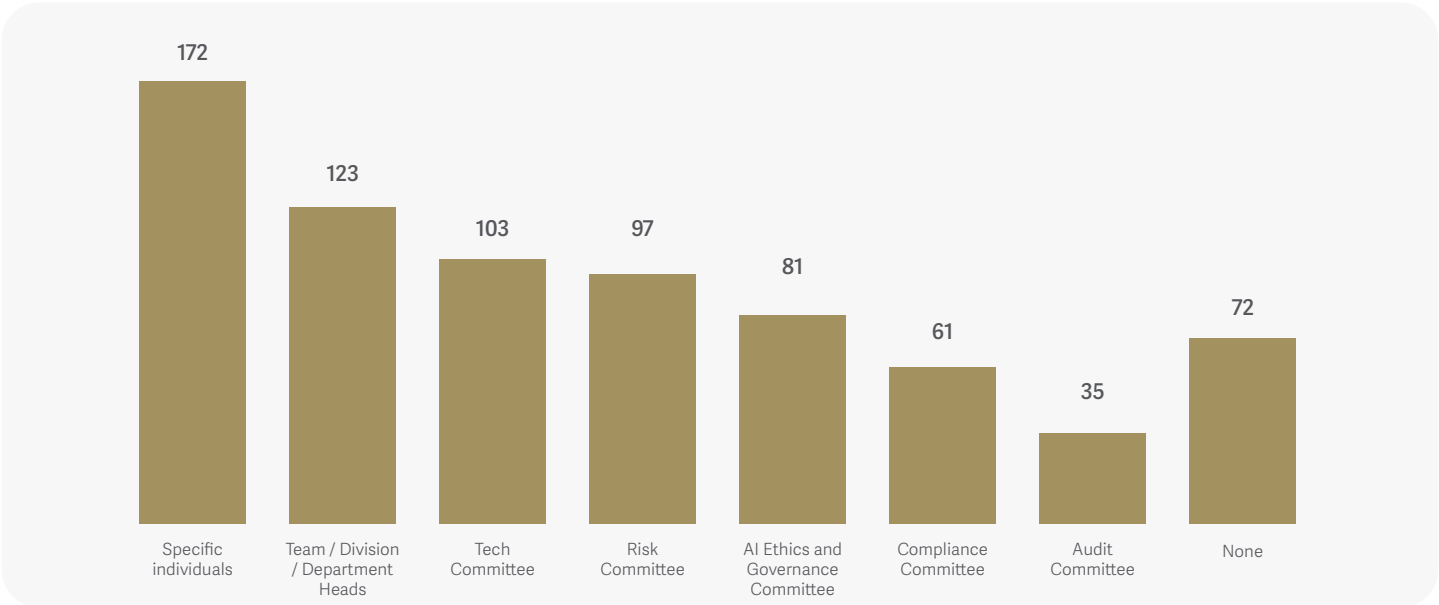
Governance and accountability

As AI adoption increases, establishing clear accountability, oversight structures, and internal capabilities can be complex. The DFSA recognises these challenges and the fast-changing environment in which firms are operating. While we do not want to stifle innovation or discourage the responsible adoption of AI, we remain mindful of potential vulnerabilities to the market in the DIFC and the need to protect users of financial services and consequently to ensure that firms manage these risks appropriately.

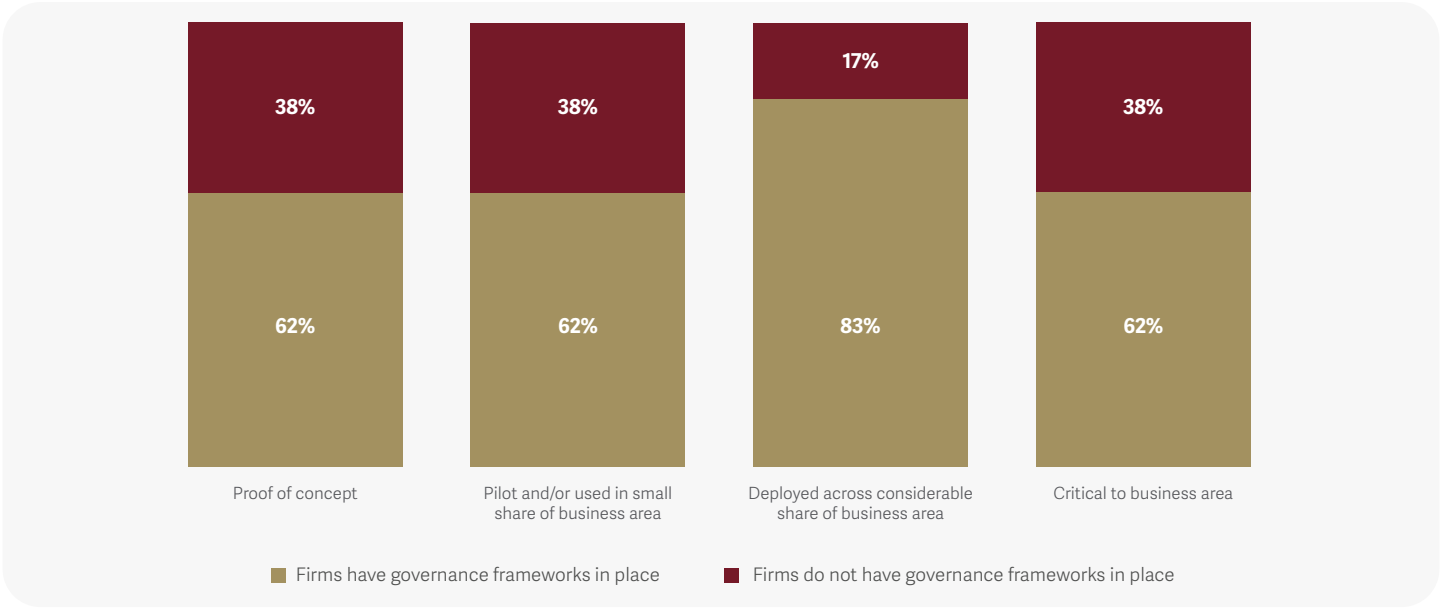
The survey results show that progress is being made – but that gaps remain. Seventy percent of firms using AI reported having formal governance frameworks in place to oversee their use of AI. Nearly half stated having a dedicated organisational policy for AI, while others rely on existing governance and risk management frameworks. Encouragingly, almost 90% of firms have allocated AI governance and oversight responsibility: while most firms designated a specific individual, such as a Chief AI Officer or Head of Compliance, or a head of department, others had this responsibility assigned to specific committees.

However, significant gaps persist, with 72 firms (21%) lacking clear accountability mechanisms for the governance of AI. And while 11% of firms using AI across a considerable share of a business area do not have any governance frameworks in place, neither does a further 26% where AI applications that are critical to a business area have been deployed.

Infographic 6: Allocation of AI governance and oversight responsibility (2025)

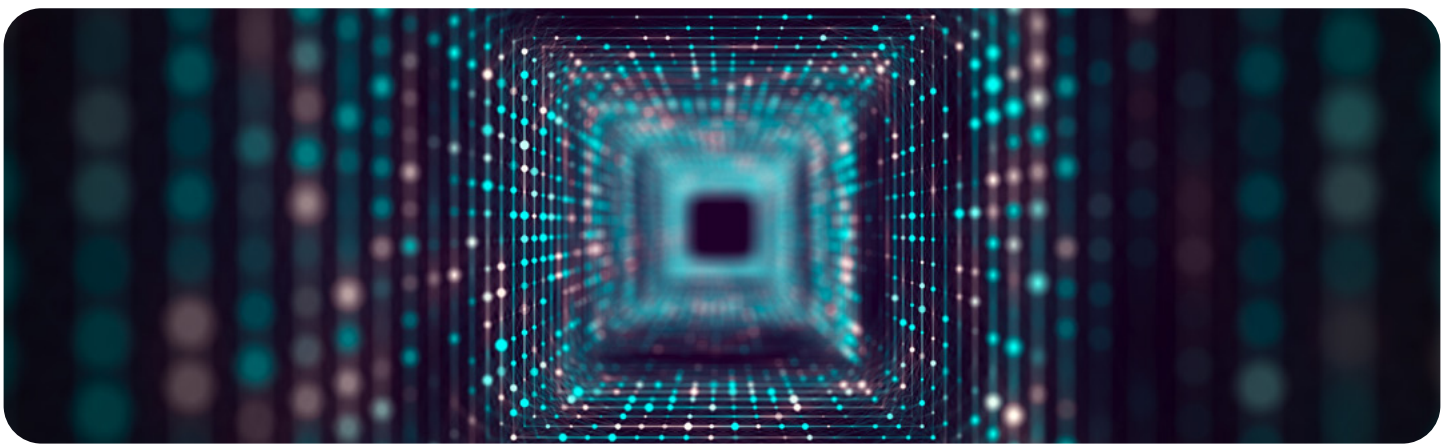


Infographic 7: Firms with governance frameworks by deployment stage (2025)

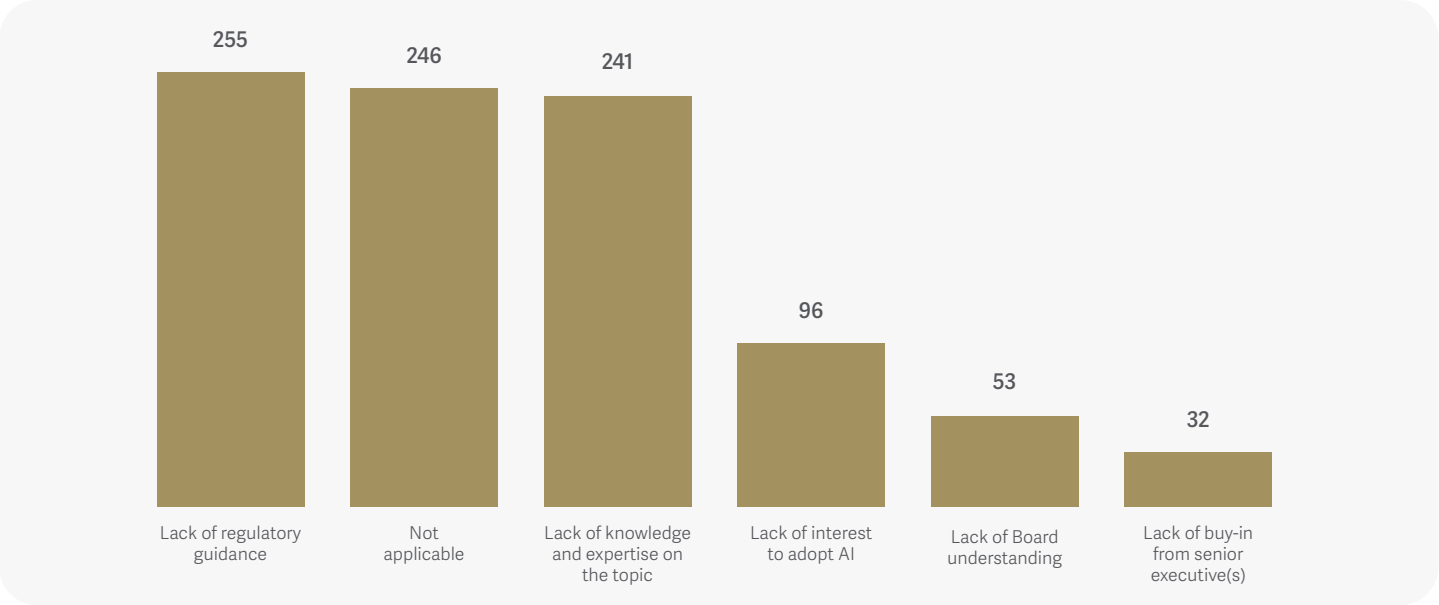


The findings also highlighted firms' key governance challenges in adopting and using AI. In 2024, the most cited one was a lack of knowledge and expertise on the topic. By 2025, the primary governance barrier shifted to a lack of regulatory guidance, according to 255 firms. This was closely followed by "Not applicable" (246 firms) and lack of knowledge and expertise (241 firms), suggesting that, while some firms may not yet perceive governance as a pressing issue, many others are struggling to build the necessary internal capabilities.

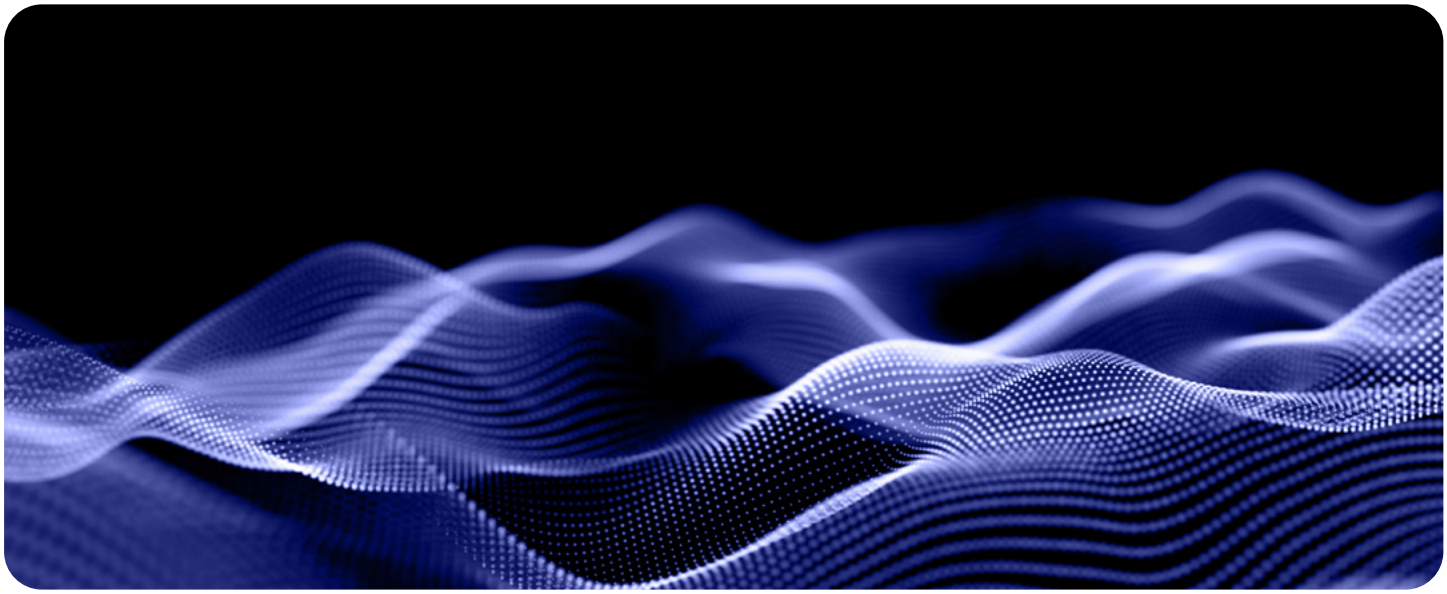
Compared to 2024, a lack of interest in adopting AI has fallen sharply, from 189 responses in 2024 to 96 in 2025, mirroring the overall increase in the number of firms now using AI. However, Board and senior management level engagement remains uneven: the number of firms citing a lack of Board understanding more than doubled (from 20 firms in 2024 to 53 in 2025), while a lack of buy-in from senior executives remained at 32 firms.



Infographic 8: Top governance challenges with AI applications (2025)



The DFSA considers sound governance to be essential for the safe and sustainable use of AI. It is not just a "nice to have", but a necessary foundation for maintaining trust, resilience, and integrity within the financial system. As firms continue to explore the opportunities that AI presents, it is important that governance frameworks evolve in parallel, with clear accountability and oversight at every stage of adoption.



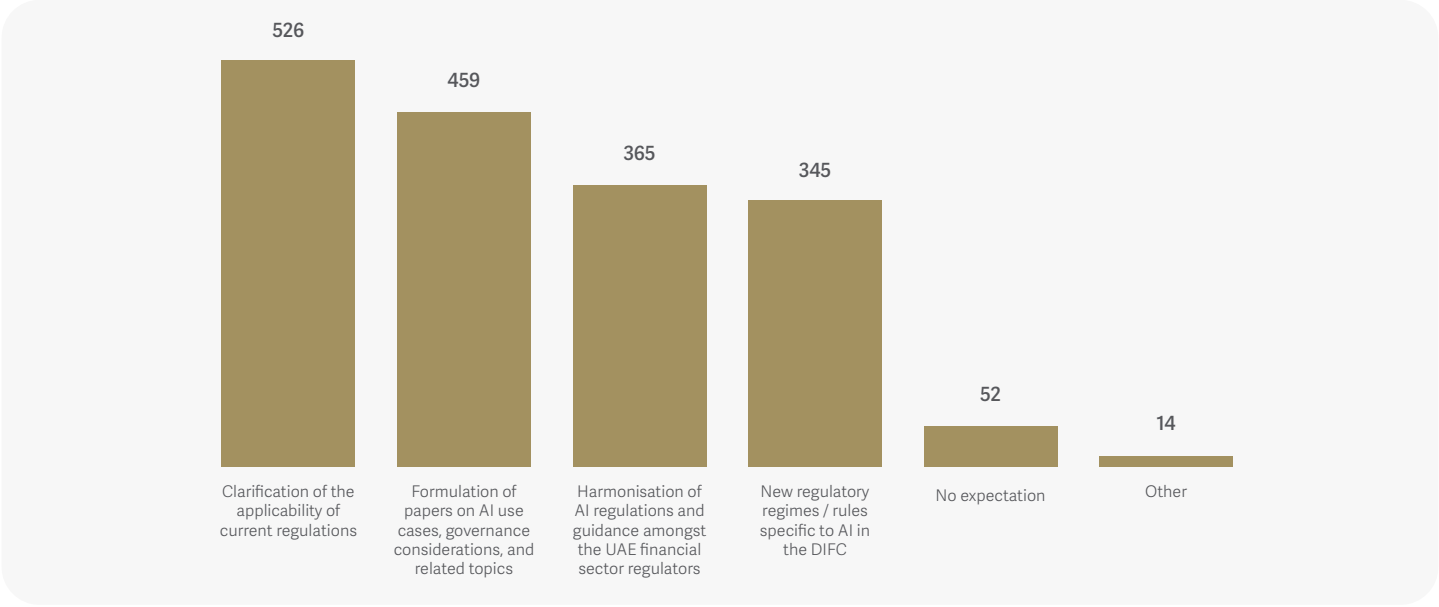
Regulatory guidance and future initiatives

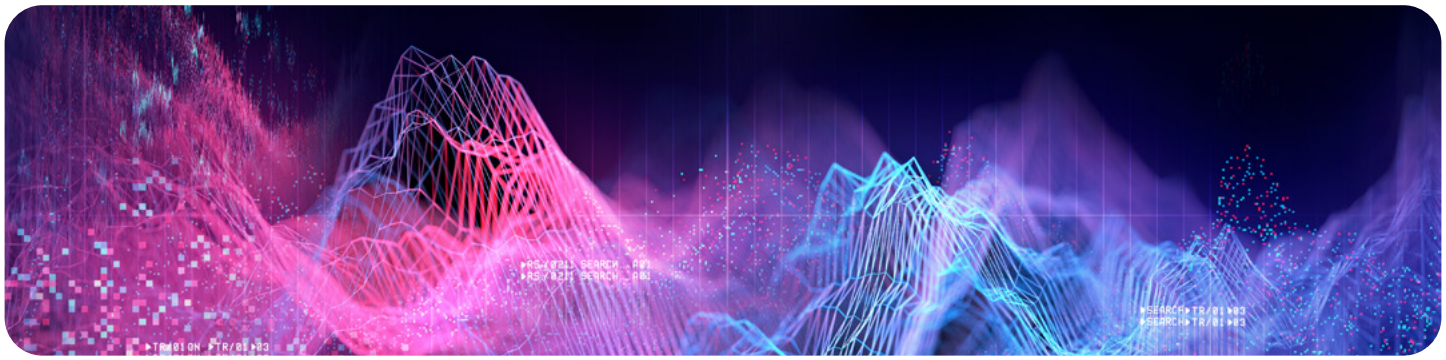
When asked what types of regulatory guidance and initiatives would be most valuable from the DFSA, 526 firms called for clarification of how existing regulations apply to AI. Another 459 firms also requested practical guidance on AI use cases, governance considerations, and related topics – indicating a strong appetite amongst firms for practical, scenario-based examples.

Harmonisation of regulatory expectations across the UAE financial sector was also a request from firms, reflecting their desire for regulatory consistency and reduced fragmentation, particularly as AI adoption can often span multiple business functions and cross-border operations. Additionally, firms expressed interest in the development of new AI-specific regulatory regimes or rules within the DIFC, suggesting that some firms see value in a more structured and prescriptive framework to guide responsible AI use.

These responses underline firms' growing regulatory maturity – recognising that long-term, sustainable AI adoption requires clear principles, consistent interpretation, and proportionate oversight.

Infographic 9: Guidance or initiatives firms expect from the DFSA





Conclusion

The 2025 DFSA AI Survey marks an important milestone in understanding how financial firms in the DIFC are using AI. The findings reflect a significant shift in the market, with most firms now integrating AI in at least one area of their operations – and a clear majority planning further AI deployment, with expected continued adoption over the next 12 months.

While AI adoption remains at a nascent stage for many firms, there is growing recognition of its strategic potential to enhance organisation-wide performance, from operational efficiency and regulatory compliance to customer engagement and sales.

The survey results also underscore a measured and cautious approach to deployment. Many firms continue to focus their use of AI on internal functions and processes, rather than external or customer-facing applications. This caution is further reflected in the divergence in the sophistication of AI applications in use and firms' strong demand for regulatory clarity. The request for clearer regulatory interpretation is, in itself, an encouraging sign of the market continuing to mature. It reflects firms' understanding that sustainable AI adoption requires clear rules of engagement and well-defined governance structures.

At the same time, the findings point to a gap in governance and oversight, with a significant proportion of firms still lacking clear accountability and governance structures for overseeing the use of AI. This is critical as effective governance and oversight are central to ensuring responsible AI deployment.

The DFSA will continue to follow a risk-based approach to regulation, ensuring that its oversight remains proportionate and responsive to emerging risks without imposing unnecessary burden on firms. In the months ahead, we will continue to engage actively with firms and other financial regulators in the UAE and globally to chart a path forward that reinforces our commitment to balance the enabling of responsible innovation with safeguarding financial stability and investor protection.

Appendix

Definitions and terms used in the survey

For the purposes of both surveys, the following definitions were used:

Artificial Intelligence (AI):

The theory and development of computer systems capable of performing tasks that traditionally require human intelligence.

AI application:

A catch-all term covering both Traditional AI and Generative AI.

Deep Learning:

A subset of Machine Learning which uses neural networks for in-depth data processing and analytical tasks. An example of this may be a neural network to identify patterns in company earnings reports.

Generative AI (GenAI):

A subset of Deep Learning models that generate content such as text, images or code based on provided input. It is trained on vast data sets and can create outputs without explicit instructions. Examples of GenAI include BloombergGPT, GPT-4 API connected chatbot, and Microsoft Copilot.

Narrow AI:

AI that is designed to perform tasks that normally require human intelligence, but which operates under a limited set of constraints and is task-specific, following pre-programmed rules or learning patterns from data. An example of this may be a simple filtering algorithm for suspicious transactions.

Machine Learning:

A sub-category of AI that is a method of designing a sequence of actions for the design and generation or development of AI models to solve a problem through learning and experience and with limited or no human intervention. An example of this may be a fraud detection pattern recognition system.

Traditional AI:

Includes Narrow AI, Machine Learning, Deep Learning.

Dubai Financial Services Authority

About the DFSA

The Dubai Financial Services Authority (DFSA) is the independent regulator of financial services conducted in or from the Dubai International Financial Centre (DIFC), a purpose-built financial free zone in Dubai, UAE. The DFSA regulates and supervises financial services firms and markets in the DIFC. These include asset managers, banks, custody and trust services, commodities futures traders, fund managers, insurers and reinsurers, traders of securities, and fintech firms.

The DFSA supervises exchanges and trading platforms for both conduct and prudential purposes, overseeing an international securities exchange (Nasdaq Dubai) and an international commodities derivatives exchange (Gulf Mercantile Exchange).

The DFSA is also responsible for supervising and enforcing anti-money laundering and countering the financing of terrorism requirements applicable in the DIFC.

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