

How Middle East banks can deliver AI at scale

**Accelerating AI transformation in
Middle East banking**

Introduction

Actionable AI: A large ME bank has been leveraging external data for early warning signals, extending the horizon to multiple years, providing ample time to react, adapt, and avoid potential issues.

By 2030, the World Economic Forum estimates AI adoption in Middle East banking could add as much as 13.6%¹ to the region's GDP. From improving risk management to raising workforce productivity and creating hyper-personalized customer experiences, AI agents and Generative AI (GenAI) have the potential to unlock incredible opportunities.

For the region's banks, the prize lies in sharper risk models, smoother customer service, faster compliance, and leaner back offices. Generative and agentic AI push the horizon even further, raising the possibility of hyper-personalized products and new revenue streams.

Delivery has proved harder than design. Deloitte's *State of AI in the Middle East 2025*² survey finds that four-fifths of executives feel under pressure to move AI projects forward. Yet, a third report significant barriers in terms of skill sets and infrastructure, while more than half say they struggle to measure returns. Pilots multiply; enterprise-wide rollouts remain scarce.

Elsewhere, AI has already shown its worth. Machine-learning models are cutting fraud, streamlining onboarding, and easing regulatory reporting. Bank of America's "Erica," a digital assistant, is now used daily by 90% of staff³ – evidence that AI can embed itself in routine operations.

Middle Eastern banks are taking steps in the same direction. Governments are doing their part to nudge the sector forward. Saudi Arabia's National Strategy for Data and AI aims to make the Kingdom a global hub by 2030, while the UAE is spending heavily on hyperscale AI infrastructure.

The direction of travel is clear. What is less certain is how fast banks can move from experiments to scale, and whether promised gains can be realized before competitors seize the lead.

¹WEF: <https://www.weforum.org/stories/2025/02/middle-eastern-banks-are-set-for-an-ai-makeover/>

²Deloitte: <https://www.deloitte.com/middle-east/en/services/consulting/perspectives/state-of-ai-in-the-middle-east.html>

³BofA Newsroom: <https://newsroom.bankofamerica.com/content/newsroom/press-releases/2025/04/ai-adoption-by-bofa-s-global-workforce-improves-productivity-cl.html>

Why AI initiatives stall

While the momentum is real, many banking sector AI projects remain stuck in the proof-of-concept stage. Several structural barriers explain why.



01

Talent shortages

Taking AI projects from pilot into production requires data scientists, AIOps engineers, prompt engineers and business experts who can lead implementation, roles that are still scarce in regional labor markets. Deloitte's *State of AI in the Middle East 2025* survey shows that skill shortages are among the top three obstacles cited by bank executives. Upskilling programs exist, but the pace of AI innovation means skills gaps reopen as quickly as they are filled.



02

Fragile data foundations

AI is only as good as the data sources that feed it, yet banks often struggle with issues of data quality and access. This is caused by siloed data, fragmented architectures, and legacy systems. More advanced AI use cases also require modern governance frameworks, along with measures to reduce the prevalence of 'hallucinations'. For trusted AI outputs, trusted and high-quality data is a baseline requirement.



03

Regulatory uncertainty

The Middle East lacks a harmonized AI regulatory framework. While the EU's AI Act is fast becoming a guideline for regulatory action, local rulebooks are still being drafted. Banks must anticipate future requirements with respect to eliminating bias, ensuring transparency, and protecting data sovereignty.



04

Unclear business value

Rather than being seen as an opportunity for business transformation, AI is often applied to limited experiments with narrowly-defined utility. Deloitte's survey also found that 60% of banks² have difficulty measuring returns from their AI initiatives, diminishing the business case for enterprise-wide investment.



05

Cultural resistance

AI deployments can add to workplace anxiety: fears of job displacement, changing roles and responsibilities, and disruption to existing operating models. Without clear communication from senior leadership and a well-defined process for change management, cultural resistance can hinder uptake.



External headwinds



Even when internal obstacles can be overcome, external pressures can complicate matters.

Data sovereignty concerns can present a serious obstacle. The most popular AI models (and their data infrastructures) are hosted outside the region. For banks charged with handling customer information within regulatory rules, sending data overseas could expose them to regulatory risk. This creates a dilemma: banks want to benefit from cutting-edge AI capabilities but need to stay in compliance – even though rules and definitions are still being ironed out⁴.

Cybersecurity presents multiple risks and obstacles⁵. Banks are already in the crosshairs of global criminal networks. Weaving AI into their operations risks introduces new vectors of attack. LLMs might be hit by prompt injection attacks, while any AI-driven banking would naturally be a high-value target for hackers. An 'AI breach' could bring financial losses and reputational damage, just now banks are asking clients to trust the reliability of new digital touchpoints.

The sheer **pace of change and innovation** adds to the uncertainty. Today's state-of-the-art AI models may well be eclipsed in a few months⁶. In a region where investment cycles are closely tied to national development agendas, technical uncertainty undermines long-term planning.

Taken together, scaling AI in Middle East banking becomes more than a question of technologies and budgets. New tools must be adopted strategically, alongside regulatory foresight, strategic vendor management, and robust cybersecurity frameworks.

⁴ CMS Law: <https://cms-lawnow.com/en/ealerts/2025/04/shaping-the-future-of-data-sovereignty-saudi-arabia-issues-new-draft-global-ai-hub-law>

⁵ Deloitte: <https://www.deloitte.com/global/en/services/consulting-risk/perspectives/cybersecurity-meets-ai-genai.html>

⁶ Harvard Business Review: <https://www.hbs.edu/bigsp/perplexity-aravind-srinivas>



Current use cases: Defensive by design

In the current adoption phase, Middle East banks are applying AI against use cases that could be described as 'defensive' – valuable in terms of efficiency and cost savings, but not oriented to growth.

Fraud detection is one of the most mature areas. LLMs are already spotting anomalies and identifying suspicious transactions. This directly supports Anti-Money-Laundering (AML) and Know-Your-Customer (KYC) requirements.

Compliance is another opportunity. Banks are trusting AI to automate the creation of finely detailed compliance documents, reducing time and cost. Even against granular rules, definitions and standards, early deployments have shown that AI can flag errors, detect missing data, and generate narratives that meet regulators' expectations for transparency.

AI is also being used to optimize **loan origination**. LLMs are being trained to take on credit scoring, speeding up approvals while maintaining risk controls. Meanwhile, **cybersecurity** teams are using AI to detect odd patterns in network activity and flag potential breaches.

What none of these use cases do, however, is transform the business model. The efficiency gains are clear, but the emphasis is on better ways to meet obligations rather than on creating new value.

Transformational use cases: Moving on the offensive

If defensive deployments of AI help banks protect margins, the next wave of innovation is about using AI to reimagine what banking itself looks like. These offensive applications are still at an early stage in the Middle East, but they hint at how AI could become a genuine growth engine rather than a compliance tool.

One area demonstrating promise is **insight-driven pricing**. Instead of assessing credit risk across broad customer segments, AI can help banks make individualized assessments of credit risk and willingness to pay. That kind of precision can be powerful in highly competitive areas like retail lending and SME financing.

Hyper-personalization offers another opportunity to differentiate. By delving into a customer's previous interactions and transactions, AI systems can help craft personalized marketing strategies vs. one-size-fits-all campaigns.

AI is also beginning to influence **investment management and trading**. LLMs have the power to flag new market patterns, optimize allocations in client portfolios, or execute trades automatically – all with greater speed and accuracy than humans.

Finally, **customer experience** in banking is waiting to be transformed. AI-powered chatbots with the logic and computing power to deal with complex queries quickly could free up human staff for more profitable interactions. If AI is combined with immersive technologies like virtual reality and augmented reality, there is potential to create entirely new banking formats.

Such growth-oriented use cases require AI adoption across the enterprise to deliver value. In that sense, AI at scale becomes the pivot point where LLMs move beyond support functions to drive growth, differentiation, and acquisition.



Glimpses of scale

Banks in the region have begun embedding AI in targeted areas. These initiatives demonstrate both the region's appetite for innovation and the variety of use cases being considered.



National ambitions



The Saudi Data & AI Authority (SDAIA), the body responsible for Saudi Arabia's data and artificial intelligence strategy, has set out a bold plan⁷ to make AI a core pillar of the country's digital economy by 2030. Supported by billions in planned investment, the Authority is building national data platforms, establishing ethical AI frameworks, and investing in talent development.

The UAE has already launched its **National Strategy for Artificial Intelligence 2031** which aims to position the country as a global leader in AI⁸. It focuses on developing talent, robust infrastructure, ethical governance and innovation. By 2031, AI is expected to contribute significantly to the UAE's economy.

Having national government backing is significant. It can accelerate creation of infrastructure and clarify the regulatory direction of travel. Banks need both to embrace AI as a centerpiece of operations.

⁷ <https://sdaia.gov.sa/en/SDAIA/SdaiaStrategies/Pages/sdaiaAnd2030Vjision.aspx>

⁸ <https://staticcdn.mbzua.ac.ae/mbzuaiwpprd01/2022/07/UAE-National-Strategy-for-Artificial-Intelligence-2031.pdf>

The Path Forward

To release AI's value, Middle East banks must move beyond experimentation and commit to institution-wide transformation. Based on Deloitte's experience, five imperatives stand out:



Peg AI investment to commercial objectives. Whether offensive or defensive, banks should set clear success metrics for their AI initiatives. KPIs could include reducing fraud losses, reducing customer onboarding times, or improving customer retention. Once in place, these should be tracked relentlessly.



Invest in talent through hiring or partnerships. Banks should look to blend reskilling with external recruitment and internal upskilling by partnering with expert professional services. Talent acquisition efforts should focus on finding business-technology translators who can bridge technical expertise with business strategy.



Strengthen data infrastructure and content governance. Modernize data management systems and enforce enterprise-wide standards for quality, lineage, and security as well as content governance and management to ensure LLMs are trained on trustworthy data.



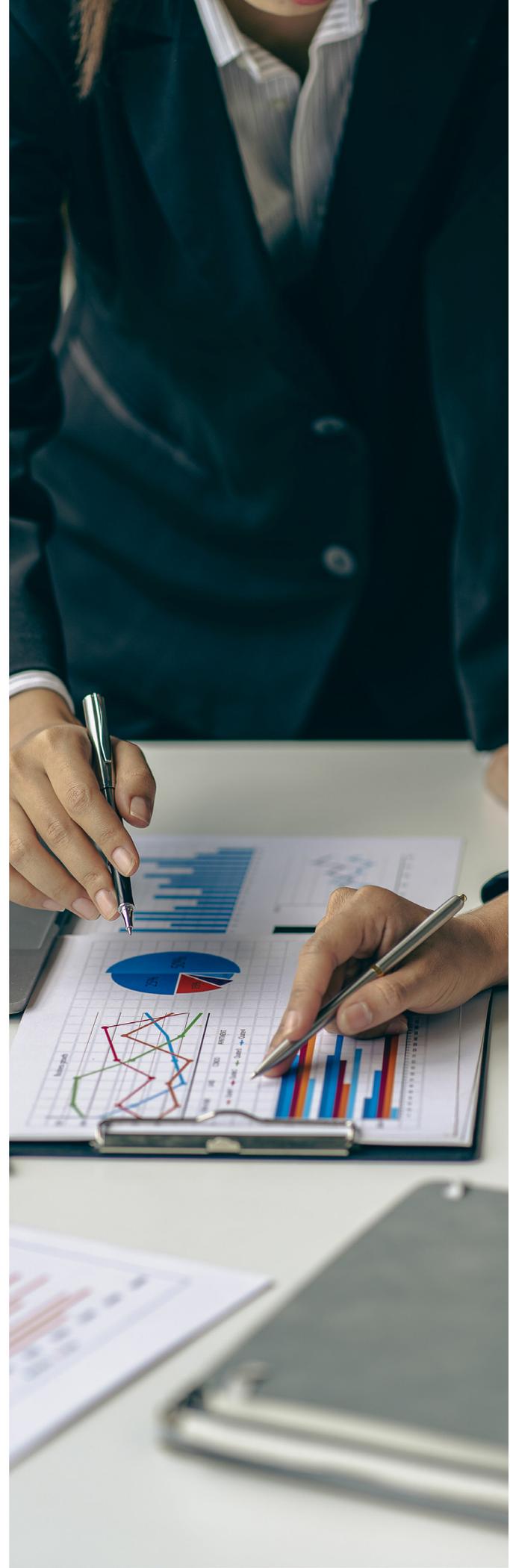
Prepare for regulation. Proactively build trustworthy AI frameworks aligned with current EU and emerging regional standards. This will reduce future compliance risk while enhancing trust with customers.



Lead from the top. Board-level sponsorship is crucial for AI initiatives to succeed. Senior executives must communicate the organization's AI strategy clearly and persistently, and work to minimize anxieties.



Scaling AI is a core business transformation—not just a technical exercise. Moving from PoC to production requires reimagining processes, managing change, and embedding AI across the enterprise. The technology may be built, but unlocking value depends on business-led adoption.



The Cost of hesitation

Deloitte's *Generative AI in Financial Services* report shows that 46% of financial services organizations, that have high confidence in their generative AI expertise, report greater ROI from AI initiatives.

The Middle East's banks have the ambition, capital, and means to demonstrate AI leadership. National strategies are in place and pioneers are proving what is possible. The next logical stage is moving to AI deployments at scale. Until that happens, the region risks watching global peers race ahead.

Across the sector, the message is clear: pilots are no longer enough. The challenge now is not to decide if AI works, but whether it becomes a growth driver across the banking enterprise. Those who can operationalize AI across their institutions will shape the future of regional banking and capture a disproportionate share of the growth.

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