Maximizing AI ROI: Avoiding Data Pitfalls

Financial services firms are increasingly embracing artificial intelligence (AI) technologies to revolutionize their revenue generation, client experience and operations excellence. The financial sector's spending on AI is set to more than double by 2027, according to the International Monetary Fund citing IDC data.[1]

While institutions have identified key areas of opportunity to unlock value and competitive advantages with AI, issues can arise during the implementation of the solution, with potential failures due to challenges related to data, processes, organizational design and role alignment.

According to the 2024 Gartner® Tech CIO Insight: Adoption Rates for AI and GenAI Across Verticals report, "the ambition to adopt artificial intelligence within 12 months of the survey date has, since 2019, hovered between 17% and 25%. However, in the subsequent year to any given survey, the actual growth in adoption has never exceeded 5%."[2]

Based on our experience working on AI projects with financial services clients, we have identified a few common pitfalls, which generally fall in the following categories:

1 Bad/poorly understood data or data limitations

AI models rely heavily on accurate, high quality data sets. Poor input training data can lead to issues such as data hallucinations, or in the case of simpler models, inconclusive or imprecise results. It also hinders transparency on quantitative and behavioral impact on AI outputs and complicates the ability to identify root causes for incorrect outputs, which is essential for addressing business and regulatory concerns about market manipulation and pricing inaccuracies.

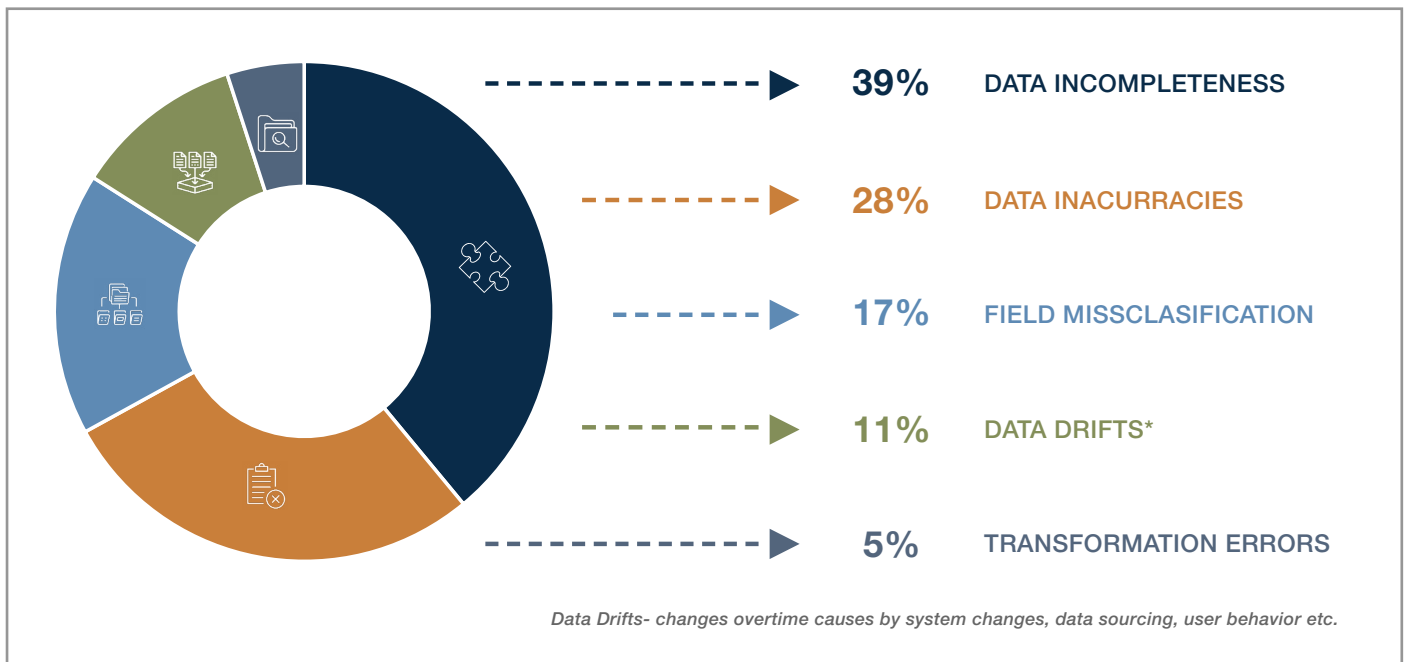Typical issues that compromise the caliber of data include:

- Data discrepancies across systems – from a definition perspective, the same data can be labelled differently, or the element is labelled similarly but represents completely different or nuanced data values.

- Data history is incomplete and / or unclear – insufficient historical data or unclear logic and values in historical data sets.

- Poor data quality – caused by incorrect data value selection / population, inaccurate calculations and incomplete data sets.

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Data Issues Preventing AI Adoption

39%	DATA INCOMPLETENESS
28%	DATA INACURRACIES
17%	FIELD MISSCLASIFICATION
11%	DATA DRIFTS*
5%	TRANSFORMATION ERRORS

Data Drifts- changes overtime causes by system changes, data sourcing, user behavior etc.

Source: A&M analysis

2 Legacy operating models and processes

AI use cases can also fail when existing processes and operating models are not refreshed or redesigned to incorporate AI outcomes into business-as-usual operations. This leads to underutilization or misuse of AI capabilities. Some common problems include:

- Insufficient or delayed evaluation of operating model – which often leads to misalignment between AI results and operational workflows.

- Redundant processes – that fail to integrate AI outputs to effectively streamline and enhance existing processes.

- Lack of integration of operating procedures into AI model feedback loops – as continuous improvement of AI models requires defined feedback pathways so review and enhancements can occur frequently.

3 Unclear impact on organization and role design

AI implementation requires alignment on possibly impacted roles, organizational structure, and new day-to-day responsibilities. However, institutions often fail to recognize the importance of organizational and role design at an early stage, leading to challenges such as fear of role displacement among employees, reluctance to adopt new tools and underutilization of AI efforts.
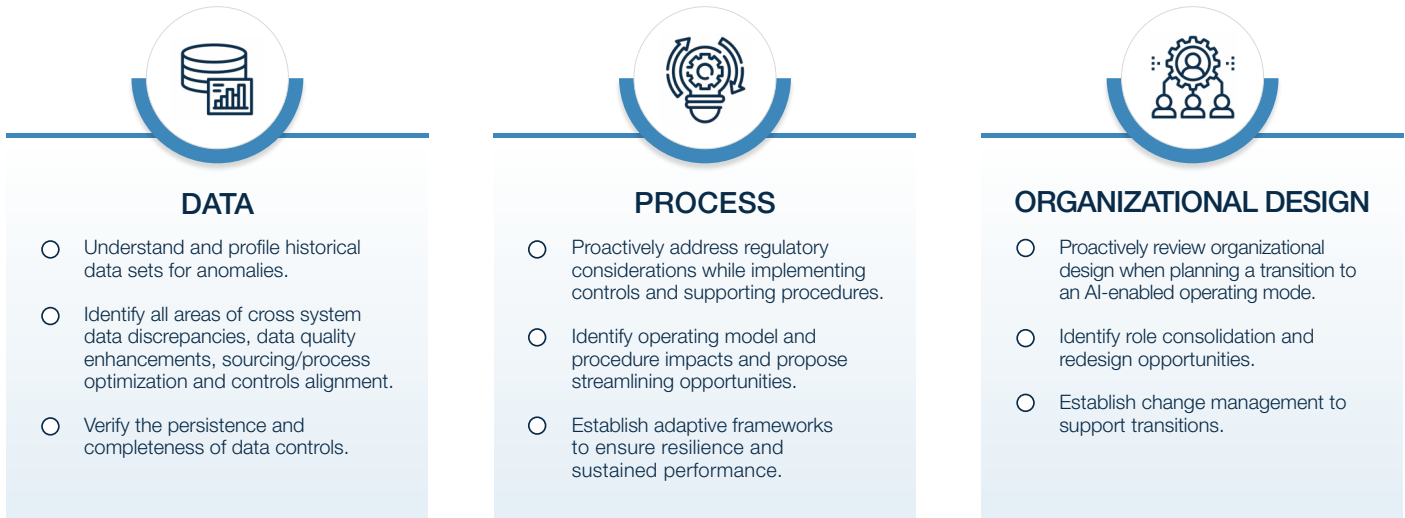
Deploying AI tools can have a significant impact on the following organizational aspects:

- Changes in roles and responsibilities – where responsibilities are more streamlined, shifting towards automation, supervision, and providing contextual insights, allowing employees to focus on higher-value tasks that complement AI systems.

- Organizational structural changes – to focus more on cross functional placements between business and technology to enhance AI models, implement robust controls, etc.

- Controls and data focus competencies – increased shared responsibility for ensuring data integrity, with more direct ownership and enforcement of controls to maintain high-quality data and reliable AI outputs.

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Key Tactical Steps

Addressing these foundational issues can significantly improve the success rate of AI use cases. In a recent survey conducted by the Bank of England, data-related risks comprised four out of the top five perceived risks of AI currently and in the next three years[3]. Moreover, several identified risks aligned to operational process deficiencies (such as execution and process management and inappropriate uses of models) and organization design elements (such as change management and account and responsibility).

We have seen the following steps to be helpful in mitigating the challenges outline in the previous section:

DATA

- Understand and profile historical data sets for anomalies.
- Identify all areas of cross system data discrepancies, data quality enhancements, sourcing/process optimization and controls alignment.
- Verify the persistence and completeness of data controls.

PROCESS

- Proactively address regulatory considerations while implementing controls and supporting procedures.
- Identify operating model and procedure impacts and propose streamlining opportunities.
- Establish adaptive frameworks to ensure resilience and sustained performance.

ORGANIZATIONAL DESIGN

- Proactively review organizational design when planning a transition to an AI-enabled operating mode.
- Identify role consolidation and redesign opportunities.
- Establish change management to support transitions.

In summary, issues around AI implementation are widespread and can occur because of challenges in data, operating models or organizational design. To fully realize the potential of AI, financial institutions must not only address these issues but do so with a strong coordinated approach between various business aspects. It is also essential for firms to identify and tackle specific use cases to maximize value rather than adopt a "pie in the sky" view.
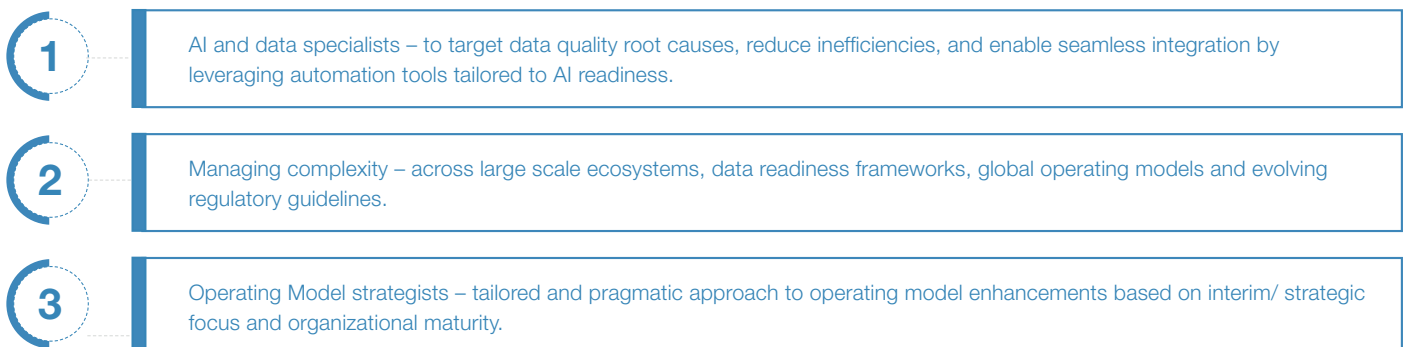
How A&M Can Help

A&M's team of senior operators bring extensive experience in financial services, data governance and transformation, managing complexity and AI adoption strategies. We help firms identify opportunities to maximize AI use cases ROI by aligning data capabilities with business objectives, diagnosing and resolving data, process, and organizational impediments.

A&M can help firms establish strong, scalable and secure data infrastructure to enable AI adoption and address heightened data requirements stemming from lack of visibility into how AI churns its outcomes.

We assist financial institutions in implementing their AI initiatives by partnering on data diagnostics, designing target business operating models, requirements and governance, while adhering to regulatory standards and industry best practices. Examples include enhancing front office surveillance by reducing false positives (in fair pricing, for example) enhancing reporting data completeness for regulatory submissions and exceptions detection for trade and contract data.

The A&M Benefits:

1 — AI and data specialists – to target data quality root causes, reduce inefficiencies, and enable seamless integration by leveraging automation tools tailored to AI readiness.

2 — Managing complexity – across large scale ecosystems, data readiness frameworks, global operating models and evolving regulatory guidelines.

3 — Operating Model strategists – tailored and pragmatic approach to operating model enhancements based on interim/ strategic focus and organizational maturity.

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3 Artificial intelligence in UK financial services - 2024 | Bank of England

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Alvarez and Marsal's Financial Service Industry Group brings operating and management expertise combined with top-tier consulting and specialized industry experience to meet evolving market dynamics. We provide transaction and performance improvement advisory services for financial services firms. Core services include:

Integrated diligence

A&M conducts holistic business assessments across financial, operational, technology, human capital, tax, and commercial dimensions. Our buy side diligence seeks to verify target value and promote investor confidence on the sell-side.

Integrations

A&M designs effective integration plans for programmatic acquirers to enhance operational performance and integration velocity. We create Day-1 and 100-Day plans for value capture, define transition services, and provide execution support to manage transitions.

Value creation

A&M empowers clients to maximize post-deal performance through go-to-market motions and operational improvements to capture synergies. We target initiatives that position clients to achieve a stronger market presence and sustain financial health.

Portfolio optimization

A&M assesses client's product and service mix to identify high-growth, high-margin opportunities, focusing investments on areas that yield the highest impact. We advise on divesting or restructuring non-core assets to sharpen focus on areas with the highest value potential.

Cost rationalization

A&M develops a fact base of expenses and capital costs. We prioritize opportunities considering impact, complexity, and interdependencies and develop an implementation roadmap with actions and milestones.

Separations and IPOs

A&M designs operating frameworks, conducts expense analyses, and implements tools to organize the transition of the separated entity. We guide companies through IPOs to ensure business readiness and regulatory compliance, allowing clients to focus on maximizing shareholder value.

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