LUMO INSIGHTS

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The AI ROI reckoning: from hype to hard results

Executive Summary

After years of feverish AI investment, new evidence reveals a sobering truth: most companies are still waiting to see real returns. Boards and investors are losing patience, and a shift towards disciplined, value-focused AI strategies is underway. This briefing examines why the AI boom has yet to deliver broad financial gains - and what separates the few success stories from the rest.

Soaring investment, elusive ROI

According to Gartner, global enterprise AI spending is projected to reach $2.59 trillion in 2026 (a 47% increase over 2025), making it the fastest-growing tech expenditure category in history (www.cio.com [1]). Yet even as this investment skyrockets, evidence of corresponding business returns is surprisingly scant. For all the enthusiasm, nearly two-thirds of organisations now actively use AI , yet the majority still report no significant bottom-line gains from these investments.

New data underscores this disconnect between AI ambition and actual impact. PwC's 2026 Global CEO Survey (released in January) found that 56% of CEOs reported no notable revenue gains or cost reductions from their AI investments over the past 12 months. Only a small minority - about one in eight companies - managed to achieve both higher revenues and lower costs through AI in that time, a select 'AI vanguard' with superior capabilities and execution (www.cio.com [2]). Similarly, MIT's 'GenAI Divide' study revealed a staggering 95% failure rate for enterprise generative AI projects to deliver any measurable financial returns within six months of deployment. The majority of AI initiatives are still not translating into tangible ROI, even as adoption of technologies like generative AI has become widespread.

This reality is counterintuitive given the hype. A technology expected to revolutionise industries is often yielding only modest improvements - or no clear financial gain at all - once implemented. These findings challenge the assumption that simply deploying AI guarantees value. As one industry commentator noted, "After years of unbridled hype, the corporate elite is facing a harsh reality: AI is expensive, resource-heavy, and the promised ROI remains elusive for most" . In other words, pouring money into AI without the right strategy and metrics offers no guarantee of success.

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Boardroom pressure for results

CEOs and CIOs are now facing mounting pressure from stakeholders to justify every AI dollar spent. Surveys indicate 61% of senior business leaders feel more pressure to prove AI ROI today than they did a year ago . Over half of investors (53%) even expect positive returns within just six months of an AI project's start - an extraordinarily short timeframe for technologies that often require significant training and organisational change.

This impatience is driving a shift in oversight and governance. A recent survey of finance executives finds the 'blank cheque' era of unconstrained AI spending is over: 66% of corporate boards now insist on seeing tangible value before approving new projects (www.deloitte.com [1]). In fact, 22% of boards have put a halt to any new AI initiatives until current deployments demonstrate real ROI. Meanwhile, 87% of finance leaders say they must link AI spend to business outcomes within the next year to meet management and board demands, yet only about one in five can currently do so (hai.stanford.edu [2]).

These dynamics have CFOs firmly in the hot seat. Nearly three in five finance leaders admit their companies are already spending more on AI than they can justify with actual results (blogs.nvidia.com [3]). Consequently, three-quarters of those who cannot demonstrate ROI have slowed or frozen AI investments, and over a third have even killed at least one initiative to cut losses (hai.stanford.edu [4]). Even tech-savvy firms are not immune: Uber's COO confessed in May that AI costs were becoming 'harder to justify' than the company had anticipated (www.appverticals.com [5]). The message from boards and investors is clear - going forward, every AI project will be expected to show meaningful returns or face being scaled back and scrapped.

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The hidden cost of AI ambitions

Amid the push for ROI, many companies are learning that AI's price tag extends far beyond initial investments in software and talent - the ongoing operational costs can be daunting. Running advanced AI models (especially large language models) demands vast cloud computing resources and electricity. Some CEOs have warned of 'skyrocketing' energy and infrastructure costs that make large-scale AI deployments unsustainable for many organisations . On top of that, many vendors now charge for AI on a pay-as-you-go basis, billing per model usage or data volume instead of flat licence fees . In practice, the more employees use an AI tool, the higher the monthly bill - a dynamic that can quickly erode margins if adoption isn't carefully controlled.

A cautionary example has thrown these risks into sharp relief. An Axios investigation revealed that one company's unchecked generative AI pilot racked up an astonishing $500 million in cloud bills in a single month . This extreme case underscores how easily costs can spiral out of control when AI usage isn't governed. During the early frenzy of 2024-2025, many firms encouraged broad AI experimentation first and worried about expenses later . Now that mindset is reversing. CFOs and CIOs are urgently implementing guardrails - from usage caps and monitoring tools to negotiated spending limits - to prevent such runaway bills in the future.

Soaring expenses are also prompting a reexamination of the classic build-vs-buy dilemma. Faced with eye-watering cloud costs, some enterprises are reassessing their dependence on pricey, general-purpose AI platforms. Industry reports point to a strategic shift away from massive, one-size-fits-all AI models towards smaller, domain-specific systems that companies can tailor and run more economically . By leveraging efficient open-source models and focusing on targeted use cases, organisations aim to pursue AI innovation in a financially sustainable way - ensuring that scaling up AI doesn’t mean scaling up losses.

Why so many AI projects fall short

If AI is so powerful, why do so many initiatives fail to deliver clear returns? One common pitfall is the leap from promising pilot to profitable scale. Many organisations get stuck in 'pilot purgatory,' running lots of isolated AI experiments that never have enterprise-wide impact . These tactical proof-of-concept projects - a chatbot here, a predictive model there - might demonstrate technical potential, but without integration into core business processes, their benefits remain siloed and marginal.

Data and infrastructure challenges present another major barrier. AI systems are only as effective as the data they learn from, yet companies often underestimate the preparation required. Legacy data silos and poor data quality can stifle AI performance, yielding misleading insights and eroding user trust . MIT researchers have noted that 95% of generative AI pilots failed to achieve meaningful returns largely because organisations weren’t sufficiently 'data ready' - their data was not accessible, clean, and integrated enough for AI to be useful . In short, even the most advanced algorithms will underperform if fed garbage data or left isolated from the wider IT ecosystem.

A lack of strategic alignment also explains many underwhelming outcomes. Too often, companies undertake AI projects simply because 'we need to do AI' - not because they have a clear business problem to solve or a measurable goal in mind. Without well-defined objectives and success metrics, these efforts become technology solutions in search of a problem . For example, an AI tool might auto-generate reports or marketing copy, but if it isn’t tightly linked to increasing sales, improving customer service, or reducing costs, executives will inevitably question why it was funded at all.

Finally, many enterprises neglect the human factor. Companies on average pour about 93% of their AI budgets into technology - models, tools, infrastructure - and only 7% into educating employees or redesigning processes (deephumanx.com [1]). This lopsided approach leaves staff ill-prepared to effectively leverage AI in their daily work, so potential productivity gains never translate into business results. In contrast, the few organisations that are realising strong returns treat AI as a broad change-management initiative, not just a tech deployment. They invest in upskilling the workforce and reengineering workflows, ensuring new AI capabilities are deeply embedded in operations from day one.

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From hype to value: A new AI playbook

Despite these challenges, a clear pattern is emerging among the companies achieving real AI value. The common theme is shifting from excitement to execution. Leading organisations set concrete ROI targets for every AI initiative and assign clear accountability for outcomes (often tapping the CFO to own AI value delivery). Tellingly, only about 2% of firms put their CFO in charge of AI ROI, but 76% of that small group report significant value from their AI investments (www.deloitte.com [1]). A finance

leader’s oversight brings discipline to project selection and forces the tough questions: How will this model save money or drive revenue? How will we measure its impact?

Another best practice is to manage AI like a portfolio of varied investments rather than a single moonshot. Gartner’s experts counsel CFOs to abandon one-size-fits-all ROI formulas and instead pursue a balanced portfolio of AI use cases with different time horizons and risk/return profiles (www.artificialintelligence-news.com [2]). Short-term wins in efficiency or cost reduction can fund longer-term, transformative bets. By categorising projects - from quick automation fixes to ambitious AI-driven innovations - and setting appropriate expectations for each, leaders can double down on what works and cull what doesn’t, without giving up on AI’s potential.

Crucially, high-ROI adopters focus on use cases where impact is directly measurable and tied to business goals. The clearest returns so far have come from applying AI in functions with quantifiable outcomes - for instance, using machine learning to cut credit card fraud, optimise supply chain routes, automate customer service, or accelerate software development . In these domains, it’s straightforward to link AI to financial performance, whether through lower fraud losses, shorter delivery times, or increased productivity and customer satisfaction. By homing in on such 'low-hanging fruit' and proving value early, companies can build momentum and reinvest the savings into broader AI transformation.

Finally, turning pilots into profits means investing in the less glamorous enablers of AI. It’s telling that organisations with full visibility into their AI operating costs are five times more likely to achieve established ROI (15% of these organisations versus just 3% of those without cost transparency) (viviscape.com [3]). Likewise, leaders address the talent and process side of the equation, correcting the 93%-on-tech vs 7%-on-people imbalance by properly training employees and rethinking workflows (deephumanx.com [4]). In practice, that means breaking down data silos, improving data quality, and refining business processes to seamlessly integrate AI tools. The companies that truly succeed don’t just install AI - they 'rewire' their operations to fully embed AI capabilities into how work gets done (hoolahoop.io [5]). With strong cost controls, clear metrics, and an empowered workforce, they turn AI from a shiny object into a genuine driver of business value.

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Key Statistics

- Global enterprise AI spending in 2026 is forecast to reach $2.59 trillion (47% higher than in 2025) ([www.cio.com](https://www.cio.com/article/4178006/state-of-the-cio-2026-cios-set-the-course-for-ai-roi.html#:~:text=State%20of%20the%20CIO%2C%202026%3A,more%20importantly%2C%20deliver%20%E2%80%94%20measurable)).
- Only 12% of companies realised both revenue growth and cost savings from AI (a 'vanguard' of AI leaders) ([www.cio.com](https://www.cio.com/article/4114010/2026-the-year-ai-roi-gets-real.html#:~:text=are%20feeling%20the%20heat%20to,some%20of%20the%20strategic%20adjustments)).
- Organisations with full visibility into AI operating costs are 5x more likely to achieve solid ROI (15% vs 3%) ([viviscape.com](https://viviscape.com/news/cfo-ai-roi-accountability-

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- Just 2% of firms make their CFO accountable for AI ROI; 76% of those see significant value from AI - far above the rest ([www.deloitte.com](https://www.deloitte.com/nl/en/issues/generative-ai/ai-roi-obm-rai.html#:~:text=differently%20www,growth%2C%20and%20savings%2C%20at%20speed)).

KEY TAKEAWAY

Senior leaders should shift from AI hype to disciplined execution. Set clear ROI targets and shorter payback timelines for AI projects, invest in data foundations and workforce training, and manage AI as a portfolio of varied bets - or risk wasting budget on unproven tech.

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