LEADING IN AN AI WORLD

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Contents

Introduction and Executive Summary

While artificial intelligence has moved swiftly from aspiration to implementation in business operations, a critical gap threatens its promise. According to WSJ Intelligence's 2023 CXO Growth Agenda study, almost 9 in 10 executives are already implementing or planning to implement AI initiatives to drive growth. Yet beneath this widespread adoption lies a stark reality: While 94% of executives express confidence in their understanding of AI, only 29% say their employees are very skilled in AI implementation. This disconnect becomes particularly concerning given that 85% of organizations report AI influences their employees' decision-making. This year's study reveals notable shifts from our 2023 findings in both organizational priorities and technology adoption. Implementation of new technology has overtaken both profitability and cybersecurity as the top organizational priority, while the perception of AI as "very disruptive" has shown statistically significant growth across all key audiences, with an average increase of 3 percentage points. The focus has shifted decisively from whether to adopt AI to how to implement it effectively. The data suggests, however, that many organizations may be moving forward without adequately preparing their workforce for this necessary transformation.

Among the Key Findings

- AI influences decision-making for the vast majority of respondents: 88% say it helps influence their decision-making significantly/a lot, rising to 90% among large organizations ($5B plus in revenue) and 97% among self-described leaders.

- Almost half of respondents cite generative AI as the top technology to prioritize for competitive advantage, ranking it above all other technologies.

- Organizations with extensive AI deployments claim measurably stronger performance, showing double-digit differences in profitability, revenue growth and innovation compared to those with limited AI deployment.

- Large-scale adoption is widespread, with 77% of larger organizations ($5B plus in revenue) using AI in all or almost all operations or actively working to incorporate it.

- Investment in AI continues to grow, with 7 in 10 organizations planning to increase AI investments in 2025.

- Workforce overreliance emerges as the top concern for 25% of organizations implementing AI.

Key Recommendations

- **Prioritize closing the AI skills gap.** Address the significant disparity between executive confidence and workforce capabilities and focus on practical application training, as only possessing theoretical understanding alone is a top barrier to effective AI use.

- **Align AI investment with proven success patterns.** Focus initial AI deployment on high-impact areas: market analysis, financial modeling and cybersecurity threat detection. Build on demonstrated success patterns from organizations showing stronger performance.

- **Develop a comprehensive AI governance framework.** Address workforce overreliance concerns through clear guidelines on AI use and implement robust data governance protocols, addressing the second-highest concern among AI users.
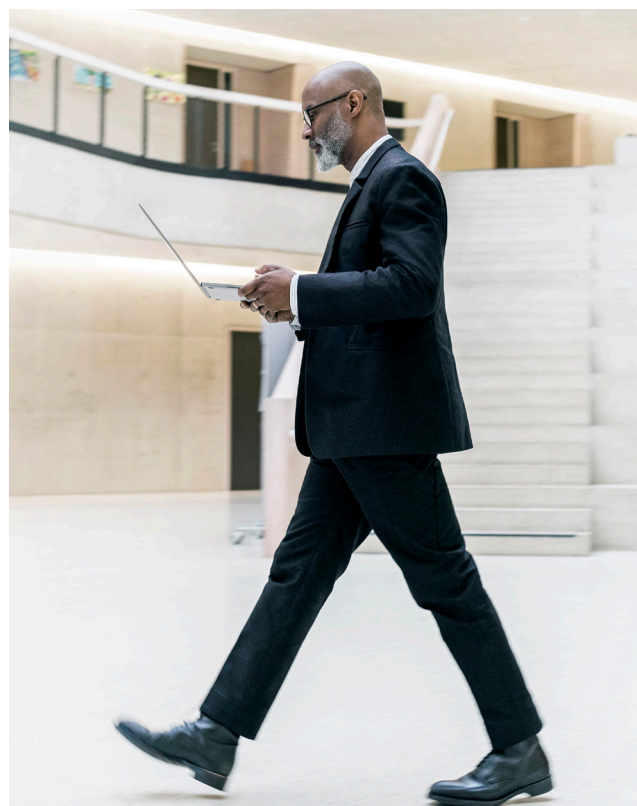
The Strategic Imperative of AI Adoption

Technology adoption has reached a critical inflection point in organizational priorities, with the implementation of new technologies now surpassing both profitability (29%) and cybersecurity (31.7%) as the top concern for business leaders, growing from 29% to 32% year over year (Figure 1). This shift reflects a growing recognition that technological advancement — particularly in artificial intelligence — has become fundamental to competitive advantage and business success.

This represents more than just a change in strategic planning; it signals a shift in how businesses view technology's role in their future success. The significance of this is particularly noteworthy given the continued importance of cybersecurity, as major threats show no sign of abating — and the fact that profitability is *always* a key priority. While cybersecurity remains the top priority for chief technology officers and chief information officers, the broader executive landscape shows a clear pivot toward technological advancement as the key driver of business performance.

"As AI technology progresses, new capabilities will emerge across various industries. Retail will benefit from hyper-personalization and AI-driven supply chains. Manufacturing will experience predictive maintenance and automated quality control. Market analysis will forecast future changes more accurately, financial modeling will improve accuracy of forecasts and risks, and cybersecurity will improve with better threat detection and real-time responses."

—Anant Adya, EVP and Head of Cloud, Infrastructure and Security Services (CIS), Americas and APAC, Infosys

Figure 1: New Technology Implementation Overtakes Traditional Priorities

Top Organizational Priorities for the Year Ahead

Total respondents
2023   2024

Priority	2023	2024
Incorporating new technologies	29%	32%
Cybersecurity	30%	32%
Profitability & cost control	30%	29%
Customer experience	29%	28%
Building resilience to economic factors	25%	26%
Employee satisfaction	27%	24%
ESG initiatives	23%	23%
Productivity	23%	22%
Team collaboration	21%	20%
Employee retention	20%	19%
Public reputation	18%	18%
Mergers & acquisitions	11%	18%
Stock price	15%	12%

This prioritization of technology is translating into widespread AI adoption across organizations. Three in 4 enterprises report they are using general AI in all or almost all of their relevant operations or are actively incorporating it into their operations. This adoption rate rises to 77% among companies with revenue over $5 billion and reaches 83% among industry leaders. The deployment of generative AI follows a similar pattern, with 73% of organizations either using it extensively or actively incorporating it, rising to 75% among larger organizations and 84% among industry leaders.

Organizations that have extensively deployed AI across their operations report measurably stronger performance across key business metrics compared to those with limited AI implementation (Figure 2). Companies with comprehensive AI implementation cite dramatic advantages: They are 42% more likely to rank as industry leaders in profitability, show 38% higher ratings for innovation leadership, and demonstrate 35% stronger revenue growth performance. These differences are statistically significant at 95%, providing compelling evidence that AI adoption has become a key differentiator in business success.

Figure 2: Extensive Enterprise AI Use in Operations Linked to Stronger Profitability, Revenue Growth and Innovation

Ratings as Industry Leaders by AI Deployment Level

■ Not using AI in all operations   ■ Using AI in all operations

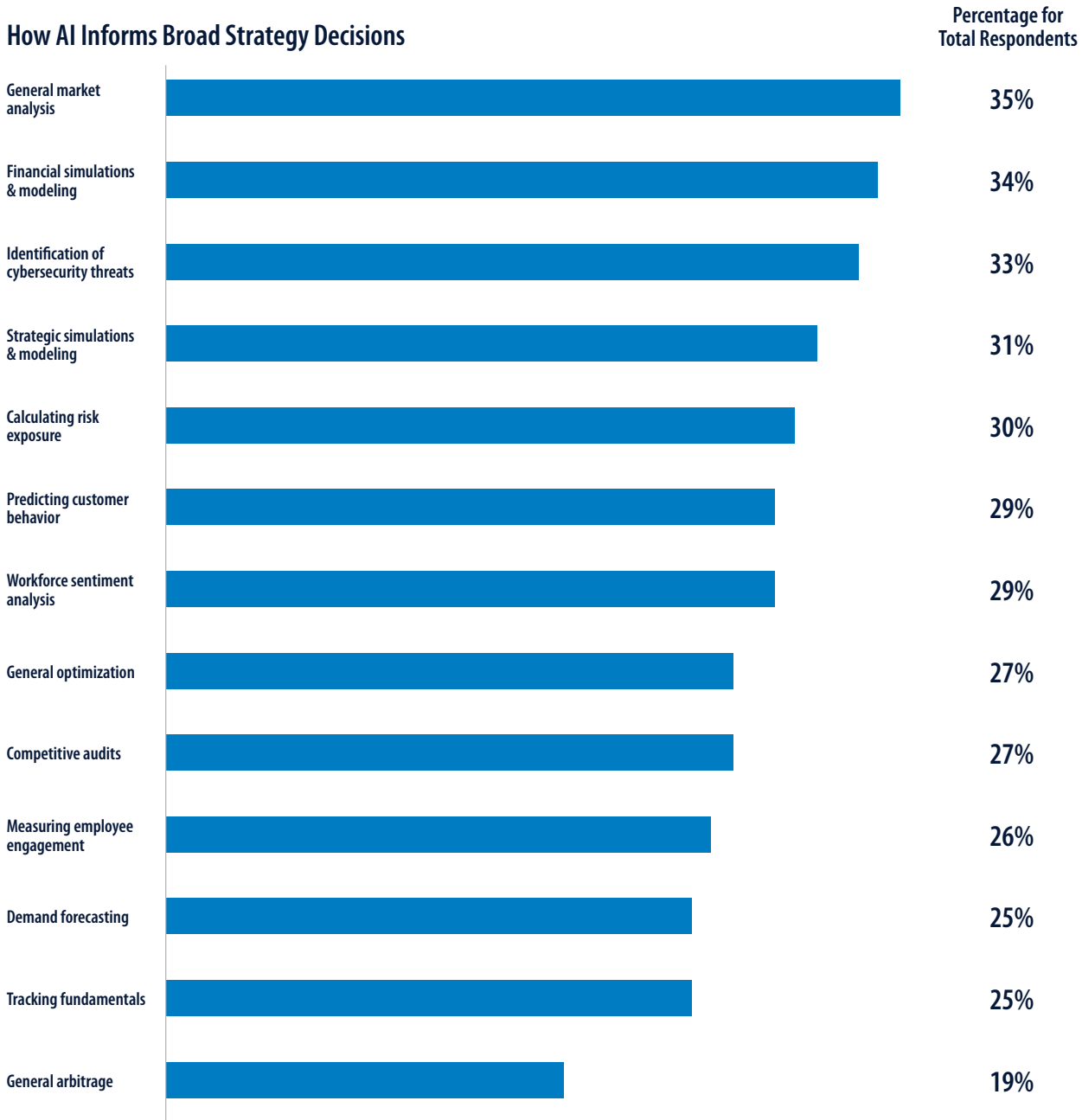|	Revenue growth	Innovation	Profitability
Not using AI in all operations	36%	28%	30%
Using AI in all operations	59%	42%	40%
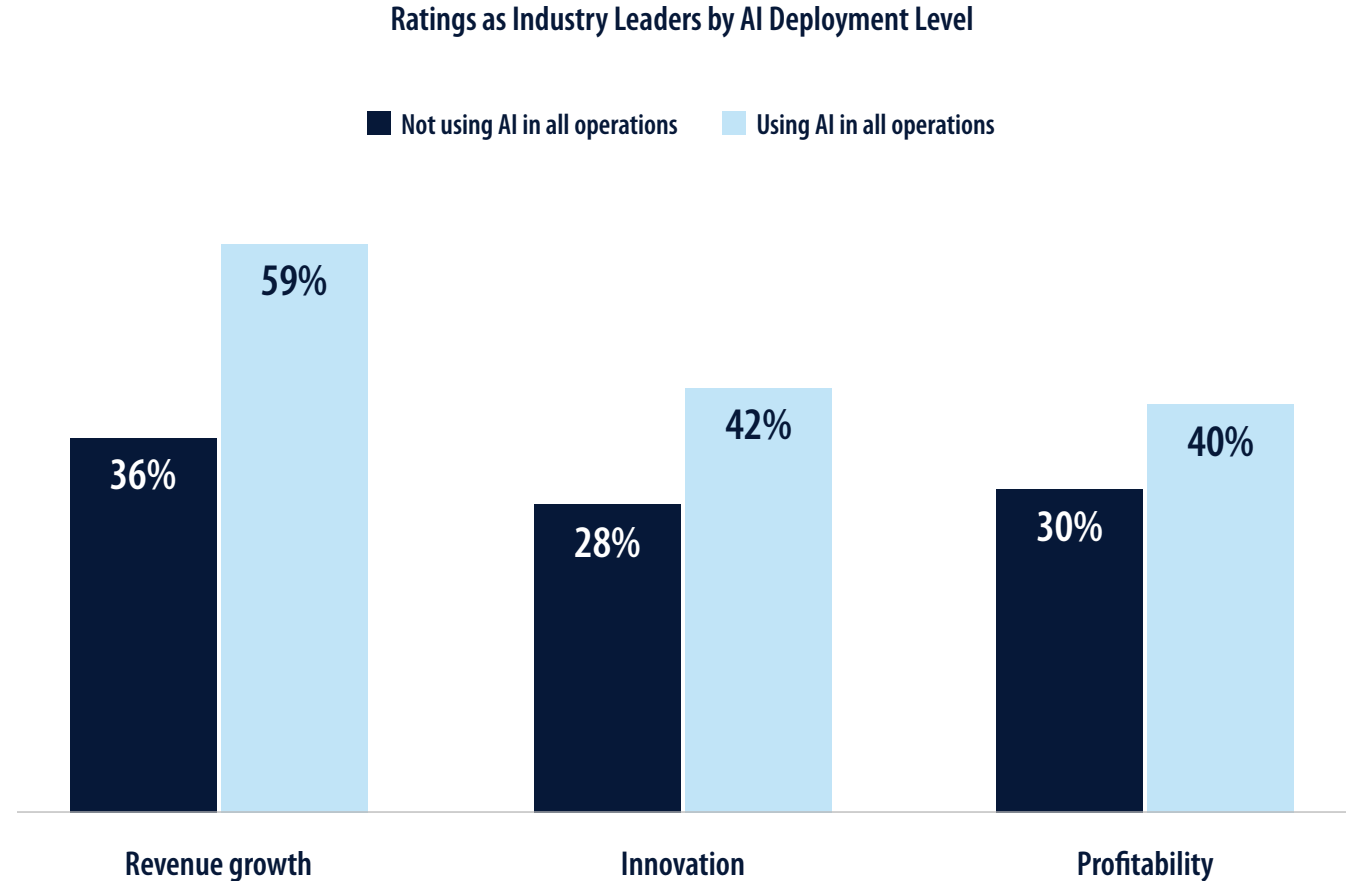
Source: Infosys Global Study, November 2024. Base: Not using AI in all operations, n=572; Using AI in all operations, n=428. Q. Please rate your organization's performance relative to its peers for each of the following indicators. Please select one from each row.

While generative AI has captured significant attention and is cited by nearly half of executives as the top technology to prioritize for competitive advantage, general AI is seeing some of the strongest investment increases, with 67% of organizations planning to increase spending in this area. This investment is reflected in how organizations are using it to transform their decision-making processes.

Clear patterns have emerged in how general AI informs strategic decision-making across organizations (Figure 3). Market analysis and trend identification emerges as the primary use case

Figure 3: AI Informs Decision-Making via Market Analysis, Financial Modeling and Cybersecurity Threat Detection

How AI Informs Broad Strategy Decisions

Percentage for Total Respondents

Category	Percentage
General market analysis	35%
Financial simulations & modeling	34%
Identification of cybersecurity threats	33%
Strategic simulations & modeling	31%
Calculating risk exposure	30%
Predicting customer behavior	29%
Workforce sentiment analysis	29%
General optimization	27%
Competitive audits	27%
Measuring employee engagement	26%
Demand forecasting	25%
Tracking fundamentals	25%
General arbitrage	19%

across most industry sectors and organizational levels, with executives leveraging AI's ability to process vast amounts of market data and identify meaningful patterns. Financial modeling and simulations represent another crucial application, particularly among financial services firms where AI insights directly inform investment and operational decisions. Cybersecurity threat detection rounds out the top three use cases, with AI's pattern recognition capabilities being deployed to identify and respond to potential security risks.

Although general AI demonstrates a clear impact on organizational decision-making, generative AI is also continuing to make its mark: Almost half of respondents cite generative AI as the top technology to prioritize for competitive advantage. When it comes to future investment, projected budget increases for generative AI are roughly similar to those for general AI, IT infrastructure, cybersecurity and cloud computing. Among industry leaders, generative AI is viewed as less disruptive than both robotic process automation and general AI,

suggesting that while organizations are rapidly adopting the technology, those at the highest level of AI adoption may see its transformative impact differently than that of general AI and automation, technologies they've worked with for years.

The impact of AI deployment varies significantly by industry, with some sectors emerging as clear leaders while others lag in adoption and impact. Health care, energy, banking/financial services, insurance and high technology industries are at the forefront of technology adoption, with 9 in 10 respondents in these sectors rating themselves as above average or industry leaders in technological implementation. These sectors also demonstrate the biggest impact of AI on long-term strategy and decision-making among both executives and employees.

By contrast, telecommunications, retail and utilities show the lowest AI deployment levels and perceived impact on business decisions and strategy. Utilities industry leaders report the lowest levels of general AI deployment,
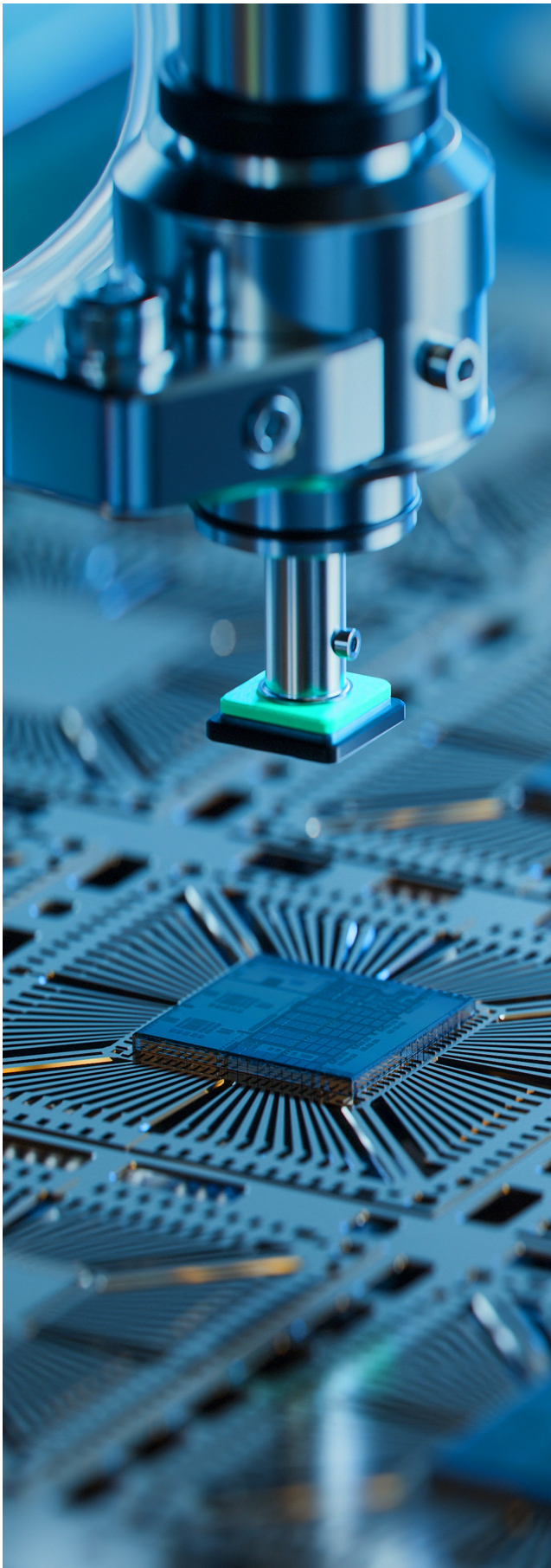
with only 1 in 4 currently using AI in relevant operations. This adoption gap has direct business implications: Organizations in sectors with lower AI adoption consistently cite weaker performance in key metrics such as profitability and innovation, highlighting the growing importance of AI as a competitive differentiator across all industries.

The disparity in adoption rates and perceived impact across industries highlights both the opportunities and challenges that AI technology presents. As organizations in leading sectors demonstrate the concrete benefits of comprehensive AI deployment, the business case for investment in AI capabilities becomes increasingly clear. Companies that fail to close this technology gap risk falling further behind as AI continues to reshape competitive dynamics across all sectors. The data suggests that AI adoption is no longer simply an opportunity for competitive advantage — it has become a necessary component of business success in the modern economy.

"Organizations that have implemented AI successfully have data readiness and democratization across functional areas, an innovation culture at all levels and leadership confidence in AI. Additionally, they have an AI task force at the organizational level to work on both demand and supply. This helps in evaluating the processes requiring AI that impact business metrics and bringing the right workforce partnerships in implementing pilots and scaling them responsibly."

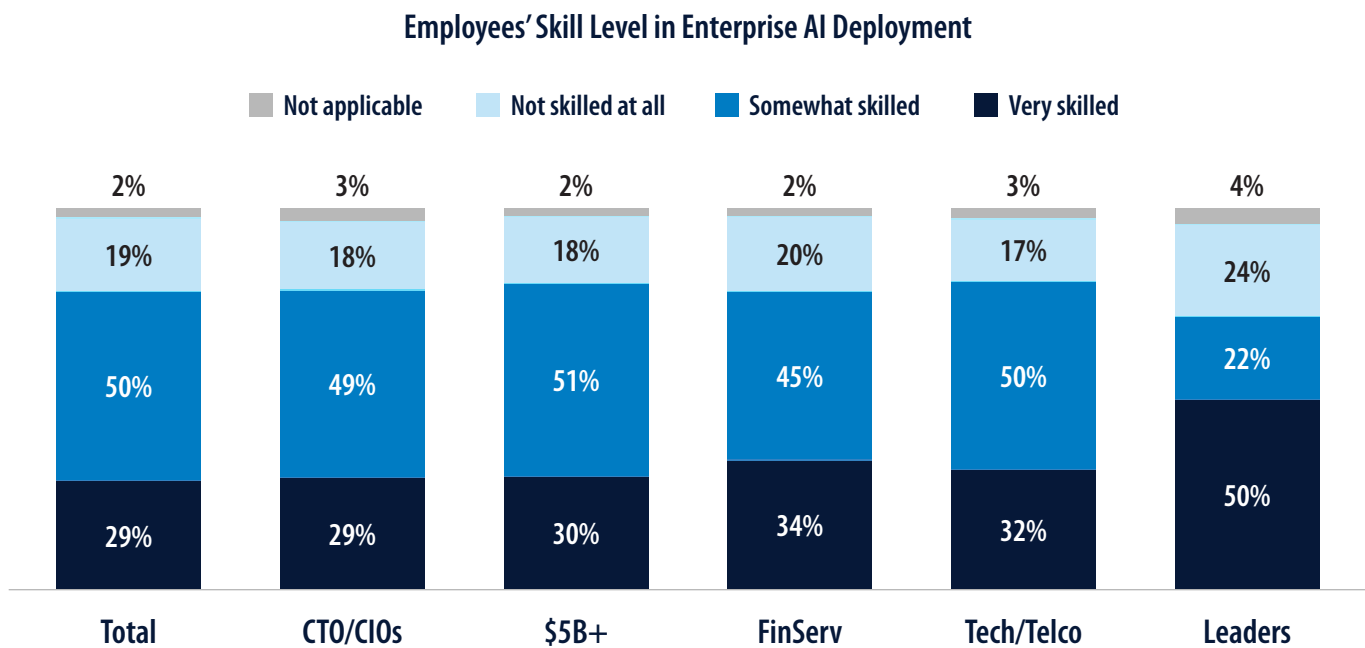— Sunil Senan, Senior Vice President and Global Head, Data, Analytics and AI, Infosys

The AI Readiness Challenge

A disconnect has emerged between executive confidence in AI and workforce readiness that threatens to limit the technology's potential benefits. While 94% of executives using AI in their decision-making express confidence in their understanding of it (with 52% saying they are "very confident"), only 29% of total respondents say their employees are very skilled in AI tools (Figure 4). This disparity is particularly troubling given that 85% of respondents indicate that the technology influences their employees' decision-making. If workers who lack AI skills are using it to make critical business decisions, the urgency of upskilling these employees is apparent. Indeed, among respondents who said their workforce is not skilled in AI tools, only possessing a sole theoretical understanding was the top barrier, followed by needing more training for successful deployment.

"The significant gap between AI influence and AI competency presents both immediate risks and strategic opportunities. Organizations should prioritize comprehensive AI training programs tailored to specific personas and job roles that focus not only on tool usage, but also on developing the right skills for AI-assisted decision-making, while simultaneously implementing guardrails and oversight mechanisms to ensure that AI is being used responsibly during this transition period."

— Bali D.R., Executive Vice President, Infosys Topaz

Figure 4: Executives Using AI Say They Are Confident They Understand It, but Say Less Than 1 in 3 Employees Are Very Skilled in AI

Employees' Skill Level in Enterprise AI Deployment

Legend: Not applicable | Not skilled at all | Somewhat skilled | Very skilled

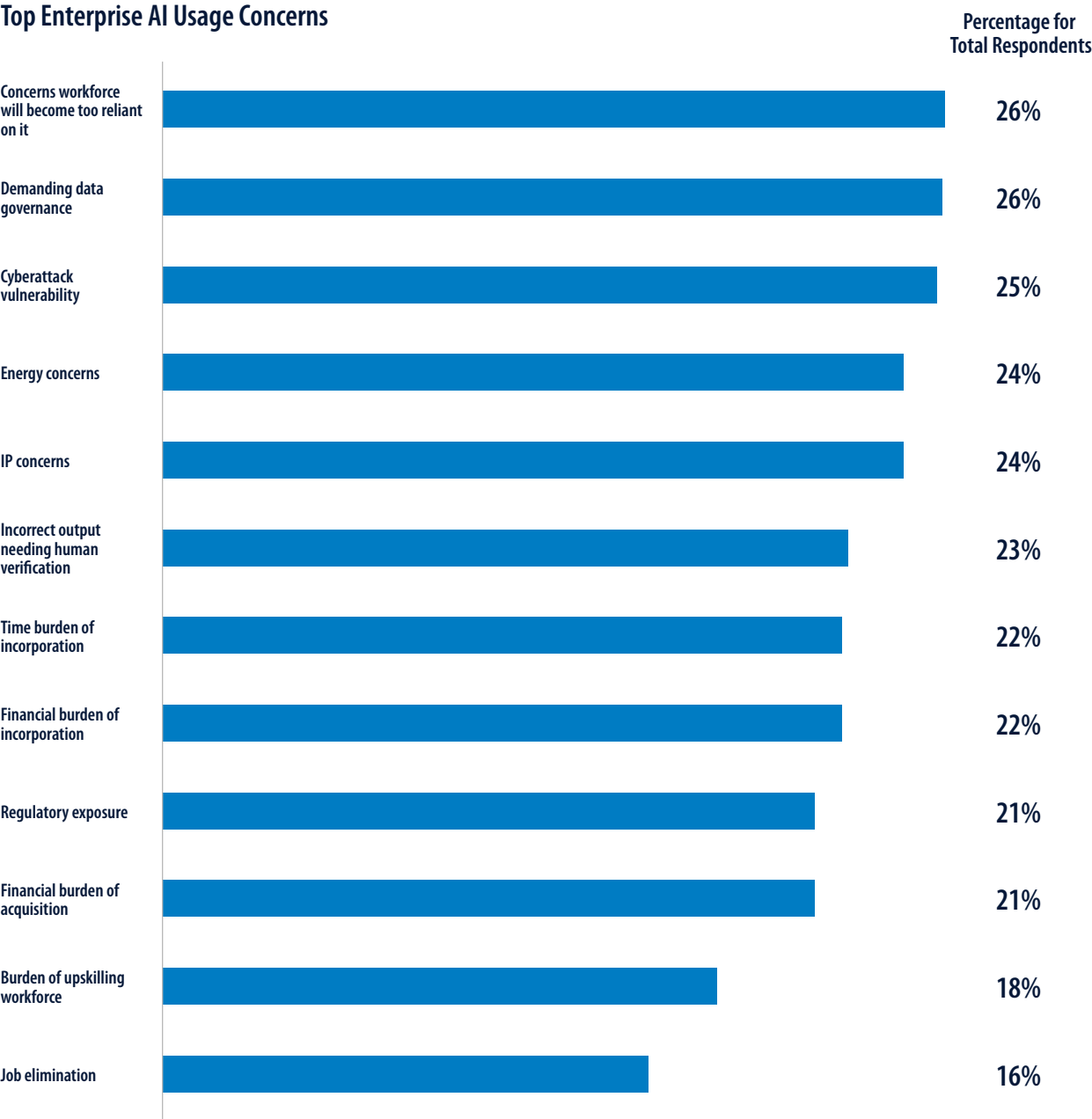|	Total	CTO/CIOs	$5B+	FinServ	Tech/Telco	Leaders
Not applicable	2%	3%	2%	2%	3%	4%
Not skilled at all	19%	18%	18%	20%	17%	24%
Somewhat skilled	50%	49%	51%	45%	50%	22%
Very skilled	29%	29%	30%	34%	32%	50%

Source: Infosys Global Study, November 2024. Base: Total respondents, n=1,000; CTO/CIO, n=136; $5B+ in revenue, n=470; Finance/Banking/Markets/Insurance industry, n=200; Technology/Telecommunications industry, n=200; Leaders, n=124. Q. Now thinking about your employees, please gauge, to the best of your ability, how ready you think they are to successfully use enterprise AI in their day-to-day operations, if available. When thinking about readiness, please consider how skilled they are in terms of actual AI tools and being able to gauge which applications are best suited for them.

This readiness gap becomes even more significant when considering that 1 in 4 organizations cite workforce overreliance on AI as their top concern for enterprise use (Figure 5). This creates a paradoxical challenge:

Organizations must address both insufficient AI skills and the risk of overreliance on AI tools, highlighting the need for balanced training approaches that emphasize appropriate and effective use of the technology.

Figure 5: Workforce Overreliance Is the Top Enterprise AI Concern

Top Enterprise AI Usage Concerns

Percentage for Total Respondents

Concern	Percentage
Concerns workforce will become too reliant on it	26%
Demanding data governance	26%
Cyberattack vulnerability	25%
Energy concerns	24%
IP concerns	24%
Incorrect output needing human verification	23%
Time burden of incorporation	22%
Financial burden of incorporation	22%
Regulatory exposure	21%
Financial burden of acquisition	21%
Burden of upskilling workforce	18%
Job elimination	16%

Source: Infosys Global Study, November 2024. Base: Total respondents, n=1,000; CTO/CIO, n=136; $5B+ in revenue, n=470; Finance/Banking/Markets/Insurance industry, n=200; Technology/Telecommunications industry, n=200; Leaders, n=124. Q. What are the biggest concerns regarding the usage of enterprise AI at your firm? Please select up to three.

An intriguing pattern emerges when examining how these concerns vary based on AI maturity levels: While workforce overreliance tops the list of concerns for organizations overall, industry leaders and those with extensive AI deployment show a somewhat different focus. In addition to workforce overreliance, these more mature AI users prioritize concerns about cybersecurity vulnerabilities and energy usage related to AI, suggesting that as organizations advance in their AI implementation, more sophisticated operational concerns begin to emerge — potentially highlighting some of the risks of overreliance on AI.

Data governance is also a top challenge, cited by approximately 25% of organizations. The emphasis on this is particularly pronounced among financial services firms, where regulatory compliance and data security are paramount. These concerns appear to be driving more sophisticated approaches to AI implementation: 77% of respondents agree that AI is best used with human guidance, and industry leaders are increasingly engaging in comprehensive discussions about AI deployment needs and governance requirements with their clients.
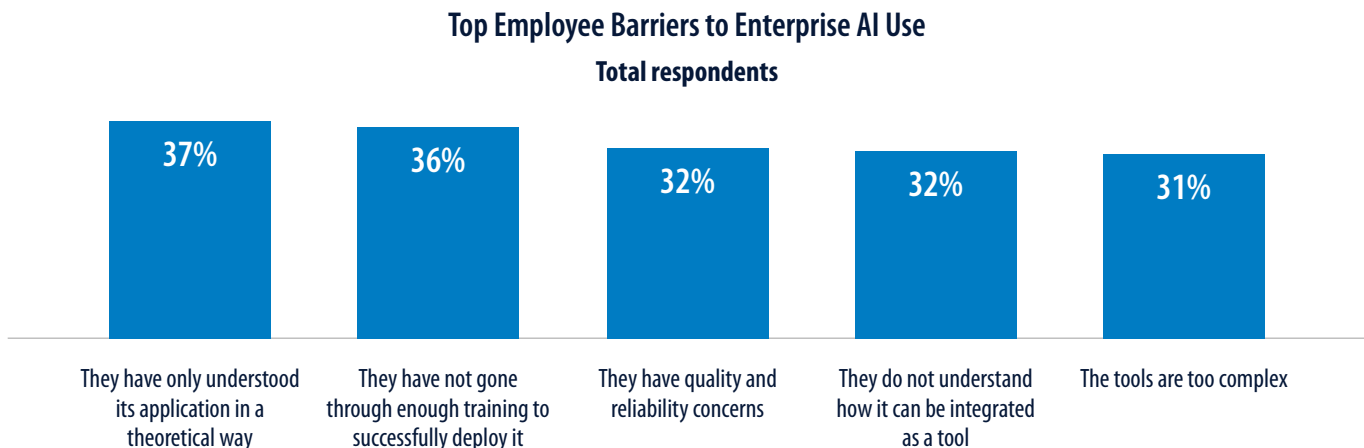
Among organizations reporting their employees as not skilled in AI tools, the barriers to workforce readiness reveal a fundamental gap between theory and practice. The most significant challenge is that employees often possess only a theoretical understanding without practical application experience. This is compounded by insufficient training programs and lack of hands-on simulations that would allow workers to develop practical skills. Organizations also report struggling with quality concerns and integration challenges, suggesting that even when theoretical knowledge exists, implementing AI tools effectively within existing workflows remains a significant hurdle (Figure 6).

"Organizations need to take steps toward upskilling employees on AI and how it works, and equipping employees with knowledge on the capabilities and limitations of the technology. The AI applications also need to be built in a manner that they take feedback on the responses generated by AI proactively, with human oversight. This feedback can then be fed into the training of AI models."

—Sunil Senan, Senior Vice President and Global Head, Data, Analytics and AI, Infosys

Figure 6: Those Unskilled in AI Need a Practical Understanding and More Training or Simulations

Top Employee Barriers to Enterprise AI Use

Total respondents

37%	36%	32%	32%	31%
They have only understood its application in a theoretical way	They have not gone through enough training to successfully deploy it	They have quality and reliability concerns	They do not understand how it can be integrated as a tool	The tools are too complex

Source: Infosys Global Study, November 2024. Base: Those who said their employees are not skilled at all in terms of AI tools, n=194. Q. You mentioned that your employees are not necessarily ready to use enterprise AI in their day-to-day operations. Please indicate why you think this is the case. Please select all that apply.

The relationship between AI adoption and workforce readiness reveals an important correlation between deployment and capability. Organizations with extensive AI deployment generally report higher employee skill levels — 43% say their employees are very skilled in AI implementation, compared to just 19% in organizations with limited deployment — indicating that businesses that have made the investment in AI have also begun investing in employee development. However, this correlation doesn't hold true across all sectors.

The health care industry provides compelling evidence that high usage doesn't automatically translate to high confidence in employee capabilities. Despite having the highest daily AI usage rate of any industry — with over 60% using both generative and general AI daily — health care leaders report the lowest confidence in employee skill sets, with only 70% believing their employees are skilled in AI, compared to nearly 90% in high tech and manufacturing. This apparent contradiction may be due in part to the fact that use cases for AI in health care include analyzing critical medical data such as imaging results, where there's little room for error — placing a premium on advanced analytical skills and AI expertise. In this context, it's unsurprising that 88% of health care executives either strongly or somewhat agree that AI should only be used in certain cases and with human guidance, leading all other industries in that response.

Success in implementation appears closely tied to organizationwide alignment on AI strategy. Among organizations using the technology extensively, 55% strongly agree that their entire company, from the executive team through the workforce, is aligned on how AI can benefit the company. This drops to just 32% among those not using the technology in all their operations, with total agreement falling to 72%, in contrast with 91% for extensive AI users.

As organizations progress in their AI journey, the nature of their readiness challenge evolves. Initial concerns about workforce capabilities and overreliance can give way to more complex operational challenges around cybersecurity, energy usage and data governance. Success requires not just deploying AI widely or using it frequently, but also building a comprehensive approach that develops employee skills while preparing for the challenges that lie ahead.

"Organizations can build alignment during AI expansion through an approach that addresses both cultural or change management and technical elements. Leadership should establish clear governance frameworks that define AI use cases, success metrics and ethical boundaries, ensuring these align with organizational strategy. This guidance should cascade through middle management, who translate AI strategy into business unit plans. Organizations should create cross-functional teams of technical, legal and business leaders to solve implementation challenges collaboratively."
— Bali D.R., Executive Vice President, Infosys Topaz

Conclusion

The pace of technological advancement has reached a critical inflection point, with new technology implementation surpassing both profitability and cybersecurity as organizations' top priority. As artificial intelligence moves from an aspirational tool to one that is fundamental to business operations, companies face both unprecedented opportunities and significant challenges.

The research shows that respondents believe that effective AI implementation improves business performance. Businesses that have successfully deployed the technology across their operations cite measurably stronger results in profitability, revenue growth and innovation. However, achieving these benefits requires addressing three critical challenges that emerged consistently throughout this study.

First, organizations must close the significant gap between executive confidence and workforce readiness in AI implementation. While executive understanding of the technology's strategic importance is high, many organizations struggle with practical implementation at the workforce level. Success requires moving beyond theoretical understanding to develop comprehensive training programs that emphasize practical application and clear use cases for AI tools.

Second, companies need to align their AI deployment with proven success patterns, focusing initial implementation on high-impact areas where the technology has demonstrated clear value. Market analysis, financial modeling and cybersecurity threat detection have emerged as key use cases where AI delivers measurable benefits. Organizations should prioritize these established applications while developing frameworks to evaluate and implement the technology in new areas.

Third, businesses must develop comprehensive governance frameworks that address both the opportunities and risks of AI implementation. With workforce overreliance and cybersecurity emerging as top concerns among organizations using AI, companies need clear guidelines for appropriate use. This includes robust data governance and security protocols and careful consideration of the technology's energy impact, particularly among larger organizations where sustainability concerns are paramount.

The companies that will thrive in this new landscape are those that can effectively balance these elements while maintaining focus on their core business objectives. By combining adaptable policies, strategic technology investments and comprehensive workforce development, leaders can drive their organizations' success in 2025 and beyond. The imperative is clear: Businesses must act now to develop the capabilities, governance frameworks and skilled workforces needed to harness AI's transformative potential.

About This Study

Credits and Methodology

This report, conducted on behalf of Infosys, presents the key findings of a survey of 1,000 senior executives at large U.S. companies (over $500 million in revenue).

Respondent Profile

- *Sample size:* 1,000 respondents; CEO or equivalent, 9%; chief operating officer or equivalent, 13%; chief financial officer or equivalent, 10%; chief technology officer/chief information officer or equivalent, 14%; chief information security officer or equivalent, 3%; divisional president or equivalent, 11%; executive vice president/senior vice president or equivalent, 41%.

- *Industry:* Finance: Banking, Finance, Capital Markets, 10%; Health Care & Life Sciences, 10%; Manufacturing, 10%; Retail, 10%; Consumer-Packaged Goods, 10%; Insurance, 10%; Energy, 10%; Utilities, 10%; Telecom, 10%; High Tech, 10%.

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