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State of Generative AI in the Financial Services Industry

Banking on AI:
The Future's Good as Gold

October 2025

Deloitte AI Institute™

Deloitte's State of Generative AI in the Enterprise Quarter four report

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Executive Summary

As industries evolve under the transformative influence of Generative AI, the Financial Services industry faces growing pressure to keep pace, with current adoption still limited in scope and maturity. Despite recognizing its strategic importance, most institutions continue to frame Generative AI in terms of isolated use cases rather than enterprise-wide change. The anticipation of transformative impacts within just a few years contrasts with today's fragmented reality, underscoring the need for foundational progress before scale can be achieved. Internal and external pressures are intensifying. To stay competitive, institutions must move beyond pilots and accelerate toward enterprise-level strategies.

Adoption patterns show a strong focus on IT and cybersecurity, alongside notable uptake in finance functions. However, technology infrastructure readiness continues to lag behind strategic planning and preparedness in governance and talent remains limited. Just 25% of organizations report readiness in governance and only 21% in talent—highlighting the need for greater investment in enabling foundations. Meanwhile, 74% of financial services firms are running between 11 and 50 proof-of-concept projects, signaling a cautious but committed approach to scaling adoption.

The industry shows a clear preference for off-the-shelf AI tools, while also investing in custom-built solutions for strategic use cases. This hybrid strategy enables speed and flexibility, though long-term adaptability may be challenged without strengthened internal capabilities. Confidence in AI is growing, with 46% of firms rating their expertise as high or very high—slightly above the average across industries.

Yet significant challenges persist. Regulatory compliance is the top barrier to AI adoption, with financial institutions facing heightened complexity. Risk management concerns—including explainability, model behavior and data misuse—further compound the trust gap. Despite these risks, only 11% of organizations are currently addressing governance model shortcomings, while data quality and availability continue to present operational obstacles.

In summary, the Financial Services industry is exploring how Generative AI could reshape its operational future. Addressing foundational issues around infrastructure, regulation, talent, and trust, and fostering deeper collaboration across teams, will be critical for the industry to position itself to unlock AI's potential. Those that act now and move beyond experimentation to embrace enterprise-level transformation will be best positioned to capture the benefits of AI-driven innovation and operational efficiency in the digital era.

Foreword

As artificial intelligence becomes more embedded in financial services, leaders are grappling with a complex mix of opportunity and uncertainty. Key questions remain: where to focus investment, how to organize for scale and which capabilities to prioritize. The path forward is still evolving.

This report presents findings from a global survey of financial services executives and provides a data-driven perspective on the state of generative AI in the industry. It explores how institutions are applying AI across strategic domains, the key challenges they face and the emerging topics gaining traction on the executive agenda, including AI agents and autonomous systems.

For decision makers shaping their AI strategies, these insights offer a timely benchmark and a clear view of where the industry is heading. We hope this report helps guide your next steps with greater clarity and confidence.

In my work with industry leaders, I see both the urgency and the ambition to get this right. For decision makers shaping their AI strategies, I hope these insights offer not only a timely benchmark, but also help guide your next steps with greater clarity and confidence.

Learn more about the series and sign up for updates at

http://deloitte.com/us/state-of-generative-ai

– Neal Baumann, Global Financial Services Industry Leader

+ Adoption and Integration of Generative AI

Adoption and Integration of Generative AI

The accelerating pace of digital transformation continues to reshape industries, with generative AI at the forefront—particularly within Financial Services. This chapter explores the motivations for AI adoption, trends in technology deployment and levels of organizational preparedness within the industry.

The Financial Services industry is actively exploring generative AI, viewing it as a potential strategic enabler while adoption remains gradual. As many as 69% of respondents expect Generative AI to bring substantial business and operational transformation to their own organizations within one to three years, exceeding the cross-industry average of 64%. Expectations for the broader Financial Services industry are similarly high, standing at 68%, also above the cross-industry benchmark of 60%, reflecting optimism about potential impact, even as adoption and scale remain uneven.

Level of GenAI adoption

Respondents selecting 'at scale implementation'

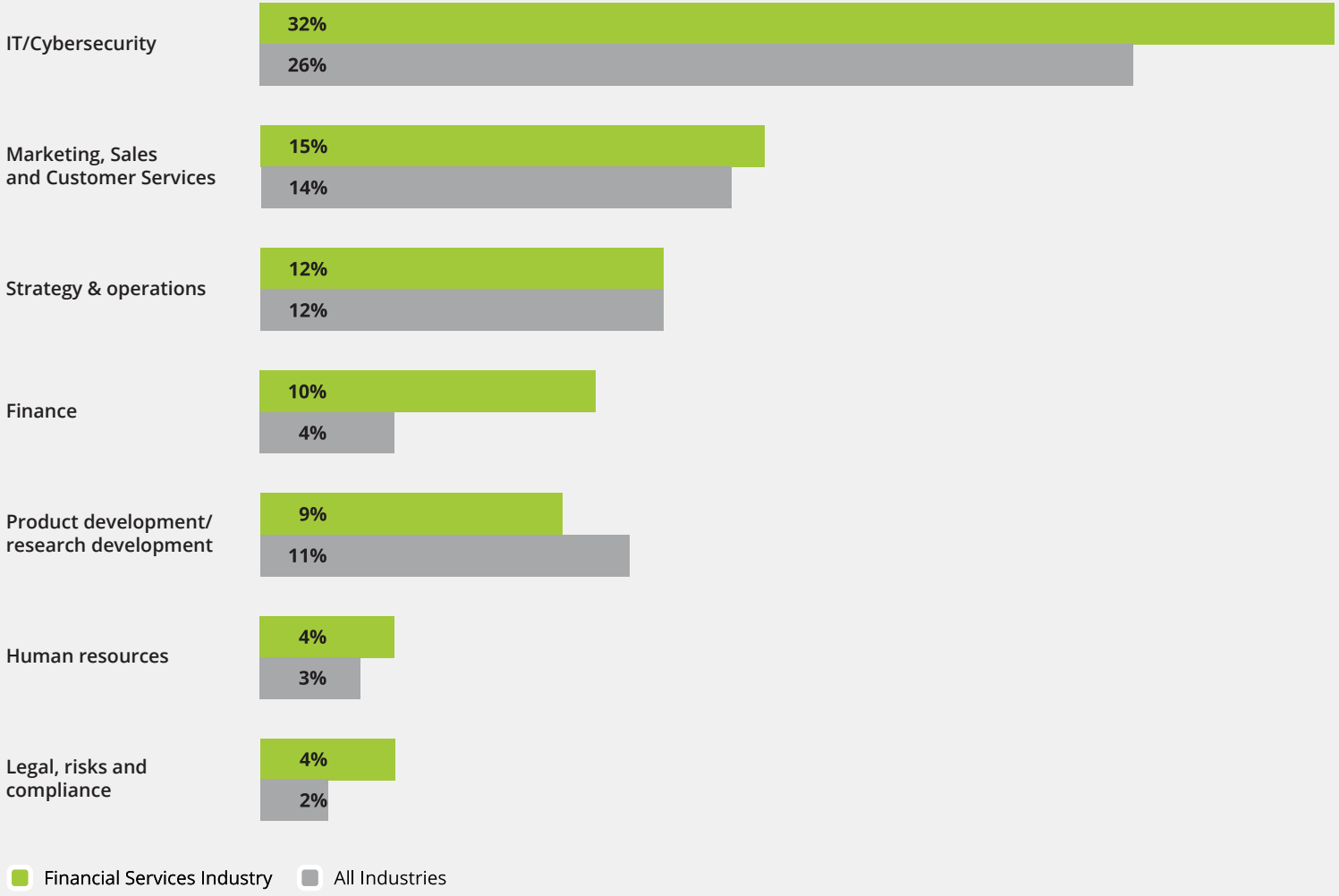


Figure 1 *Q: What is your organization's current adoption level of generative AI across the following functions?*

Pressure for AI adoption is building. Internally, 35% of organizations feel strong pressure from leadership and workforce expectations. Externally, 39% face demands from markets and stakeholders, urging rapid adoption. Both figures are above the cross-industry average, highlighting the dual pressure that reinforces the urgency of integrating AI to sustain a competitive edge.

Current adoption patterns reveal that IT/cybersecurity is a primary focus, with 32% of firms reaching 'at scale implementation,' outpacing cross-industry figures by 6 percentage points (figure 1). This priority reflects the need for robust security and technology infrastructure. Finance departments also see considerable AI adoption, with a 10% implementation rate, more than twice the cross-industry average, emphasizing efficiency and cost reduction.

Level of preparedness

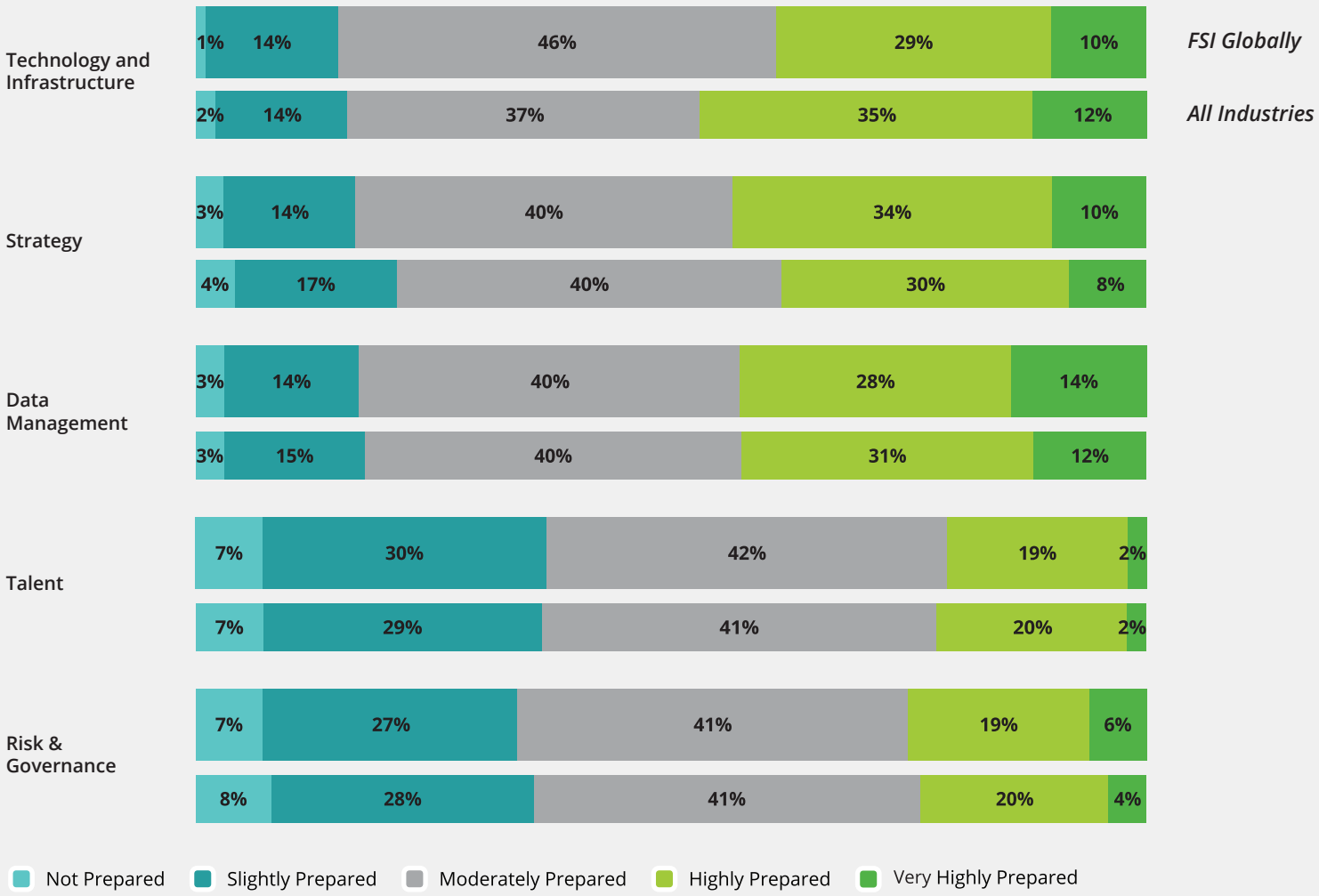


Figure 2

Q: Consider the following areas. For each, rate your organization's level of preparedness with respect to broadly adopting generative AI tools/applications.

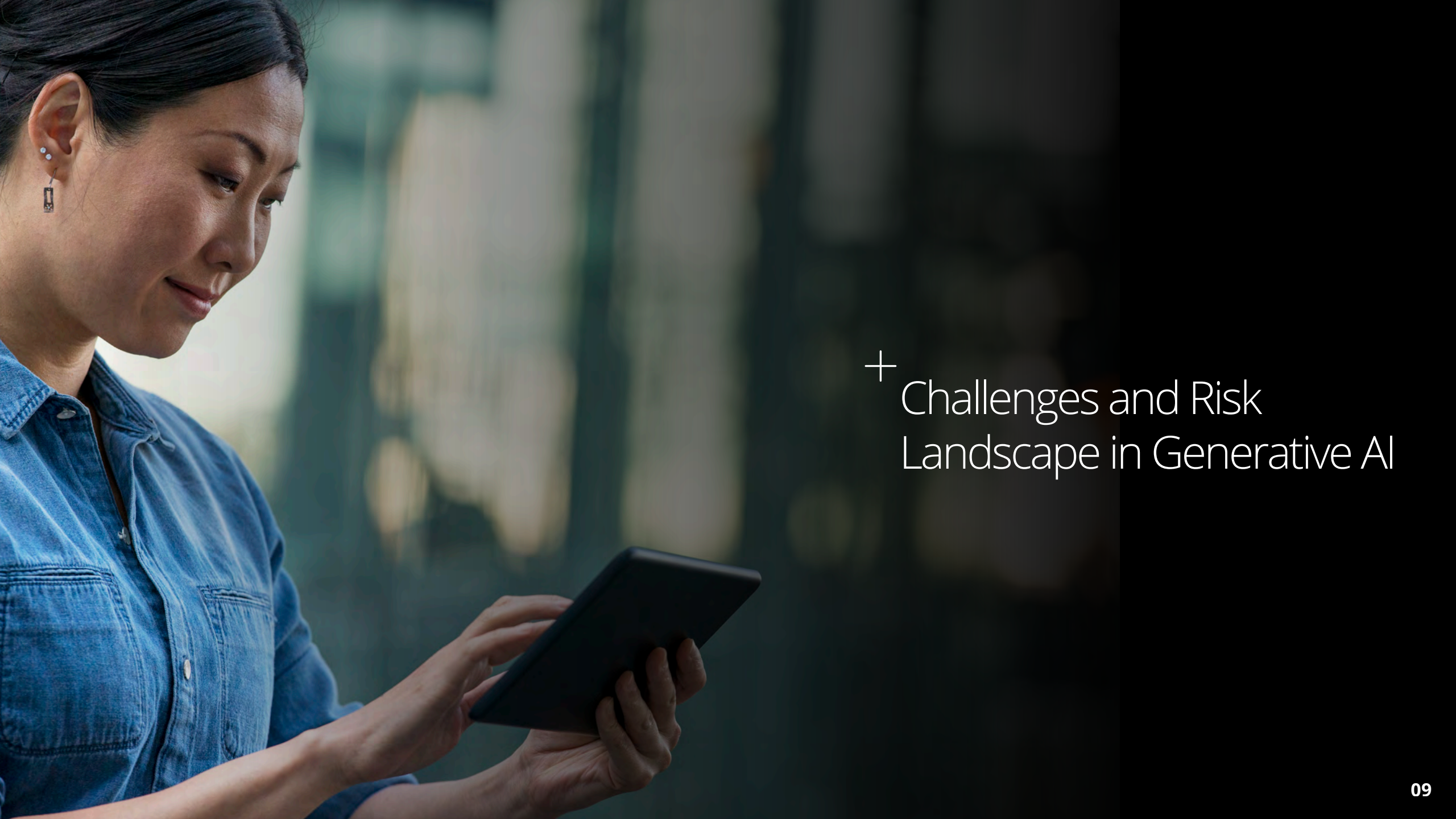
Organizational preparedness plays a crucial role in AI adoption success. While strategic planning is solid, with 43% of financial services respondents reporting high or very high preparedness—surpassing the cross-industry average of 39% —technology infrastructure readiness lags at 39%, well below the cross-industry average of 47% (figure 2). This indicates that although strong strategic frameworks exist, greater investment in technology foundations is needed. Risk and governance, as well as talent, show only modest readiness levels in financial services at 25% and 21%, respectively, closely matching the cross-industry averages. Enhancing governance frameworks and developing skilled talent will be essential to support sustainable AI adoption and achieve strategic goals.

When sourcing AI solutions, 53% of organizations prefer buying over building, while 18% favor building their own tools. This approach reflects the urgency to deploy proven capabilities quickly. While this strategy enhances efficiency, it raises concerns about long-term adaptability. Over reliance on third-party vendors for core capabilities can hinder innovation and flexibility over time. To mitigate this risk, organizations should balance off-the-shelf tools for standard functions with custom-built solutions for strategic initiatives.

Experimentation is key in advancing AI capabilities, with 58% of financial services organizations engaged in 20 or fewer AI proof-of-concept, yet 3% are testing at massive scale with more than 100 initiatives underway. This relatively cautious pace of experimentation could slow down innovation.

The Financial Services industry aspires to leverage AI for transformative change, but current adoption is still in early stages. While optimism is high, functional adoption remains fragmented, and enterprise-scale integration will depend on addressing infrastructure gaps and aligning governance, talent and strategy. To ensure sustainable impact, institutions must balance rapid deployment with long-term adaptability, leveraging both off-the-shelf solutions and bespoke innovation to unlock lasting value.

While adoption is accelerating, it is not without its complications. The following chapter explores the major road blocks hindering progress.



Challenges and Risk Landscape in Generative AI

Challenges and Risk Landscape in Generative AI

Generative AI holds tremendous promise for the Financial Services industry, offering pathways for innovation and strategic growth. Yet, despite its potential, integrating this technology is challenging.

Regulatory compliance remains a major hurdle. Nearly half of respondents from the financial services industry cite it as a significant barrier—the highest level of concern across all industries surveyed—and significantly above the cross-industry average of 38% (figure 3). This underscores the uniquely stringent regulatory environment in which financial institutions operate. Risk management is closely tied to compliance concerns, with 37% of stakeholders citing it as a major obstacle. Developing robust compliance frameworks is crucial to align AI implementations with legal standards and sustain trust in AI-driven innovations.

Apprehensions about model behavior, such as hallucinations or errors leading to real-world implications, are heightened in an industry where accuracy is paramount. A significant 30% of respondents worry about the lack of explainability and transparency in AI outputs (figure 4). This lack of clarity directly impacts trust in AI solutions and creates barriers to successful deployment.

Barriers of adoption

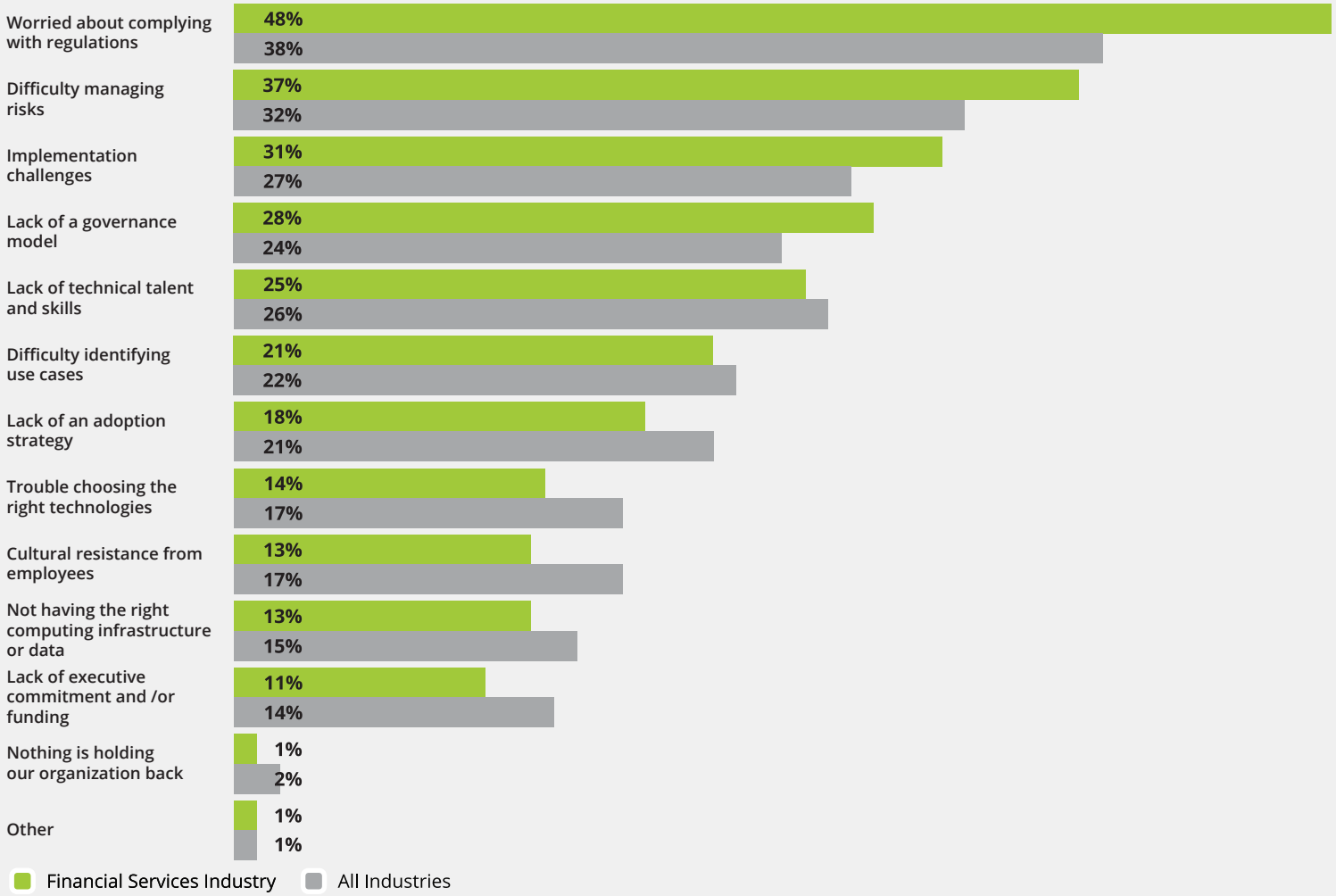


Figure 3 *Q: What, if anything, has most held your organization back in developing and deploying generative AI tools/ applications?*

Data privacy and trust are foundational issues. Misuse of client data is a predominant concern for 46% of respondents. This goes beyond compliance, touching on ethics and trust. Concerns about model inaccuracies and biases add to the mistrust in AI systems. Organizations must implement transparent and explainable AI to address these issues. Data should be viewed as a valuable asset requiring protection and the ethical use.

Moreover, data quality and management present another significant hurdle. Approximately one-third of respondents identify data availability and standards as a major impediment. Given regulatory demands, maintaining data quality and alignment with compliance is critical. Some companies are making strides, with 15% indicating they are promptly resolving these data-related issues, typically within six months or less.

Biggest risk / fear

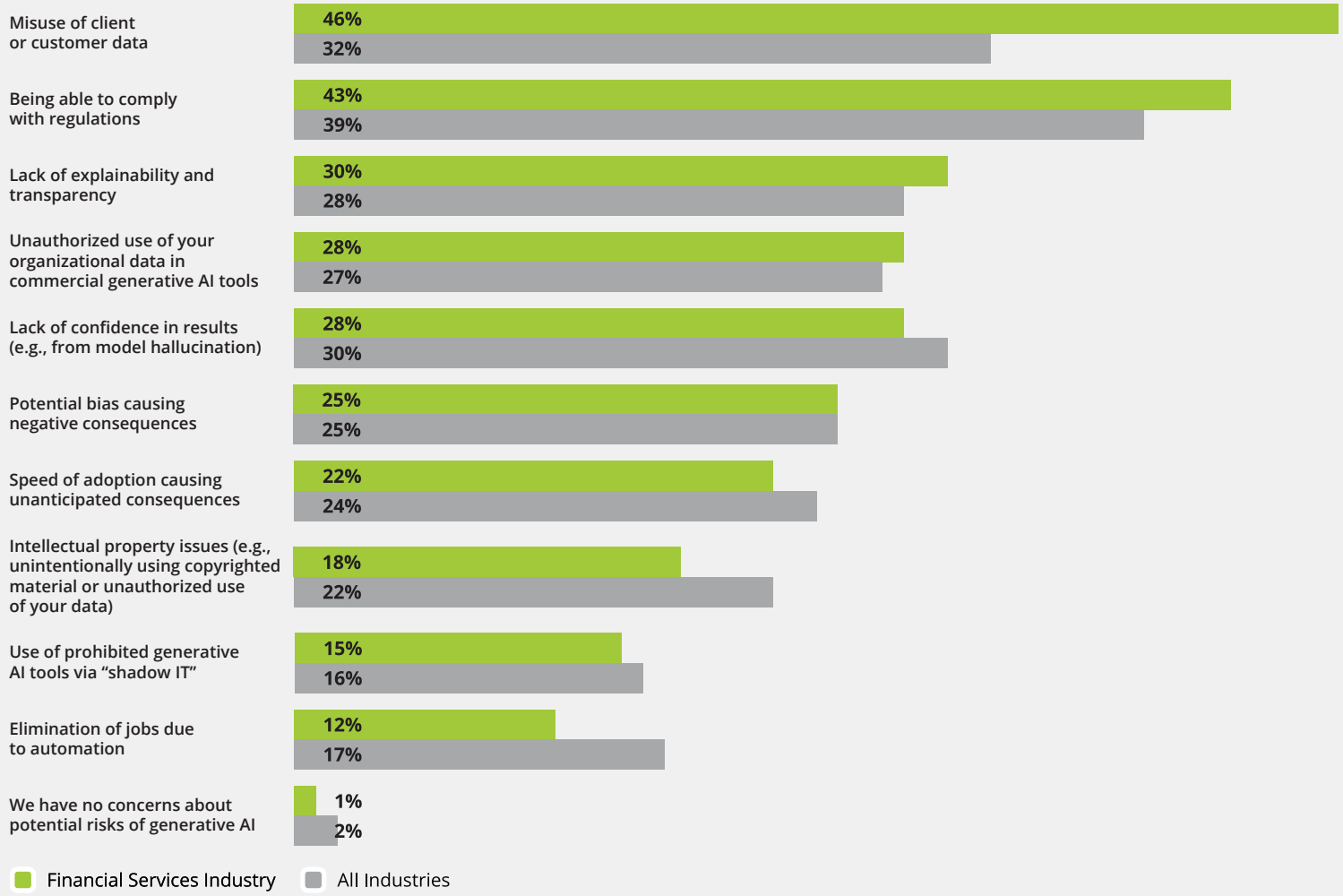


Figure 4 *Q: Which of the following risks related to generative AI tools/applications is your organization most concerned about?*

The lack of a comprehensive governance model also poses significant challenges, ranking fourth overall in priority and cited by 28% of respondents. However, while a sound governance structure is vital for coherent AI strategy integration, only 11% of financial services firms are committed to address these governance issues shortly.

Organizations in financial services must strike a careful balance between pursuing innovation and ensuring integrity in AI applications, prioritizing transparent processes for successful integration. Doing so requires a holistic strategy that aligns regulatory compliance, technical capabilities and human expertise. Strengthening risk management, investing in AI talent and reinforcing data protection are key enablers. As adoption grows, the focus will shift toward trust, strategic data use and adaptive governance—critical to realizing AI's transformative potential and long-term value.

+ Strategy and Future Direction in Generative AI

Strategy and Future Direction in Generative AI

Generative AI technologies are increasingly shaping operations and strategy in the Financial Services industry, yet the pace of adoption may not be fast enough to mitigate the growing threat from agile fintechs and emerging competitors. Confidence in generative AI is noteworthy, with 46% of respondents rating their expertise as “high” or “very high.” This surpasses the average across industries of 41%. This level of proficiency positions financial services institutions to integrate advanced technologies into their operations, driving efficiencies and competitive advantages. High expertise acts as a strategic asset, enabling institutions to innovate solutions that meet evolving market demands.

However, challenges remain, particularly around regulatory obligations. While financial services mostly align across all industries regarding desired benefits of generative AI, there is a distinct focus on compliance and risk management. Detecting fraud and managing risk are top priorities for 32% of respondents in the industry, well above the 19% cross-industry average, reflecting a strong commitment to safeguarding assets (figure 5). Enhancing relationships with clients and customers also ranks higher in financial services at 30%, compared to 23% across industries. Despite this, only 26% cite encouraging innovation and growth as a motivation, which is the lowest across industries and well below the cross-industry average of 33%, signaling a cautious approach toward disruptive change. Organizations must balance risk management with fostering a culture of innovation to fully leverage AI’s capabilities.

The industry places strategic emphasis on refining frameworks to meet quality standards in GenAI-driven software development. Enhanced testing and validation protocols are prioritized by 57% of respondents—significantly above the average across industries of 52%—reflecting the industry's focus on maintaining high standards in this accuracy-sensitive domain. Similarly, 46% have implemented standardized development practices, compared to 38% across industries, underscoring efforts to ensure consistency and reliability. Conversely, only 41% recognize the need for increased cross-functional collaboration, which is the lowest across industries where the average stands at 49%. This under representation may hinder holistic innovation efforts and warrants closer attention.

Desired benefits from generative AI

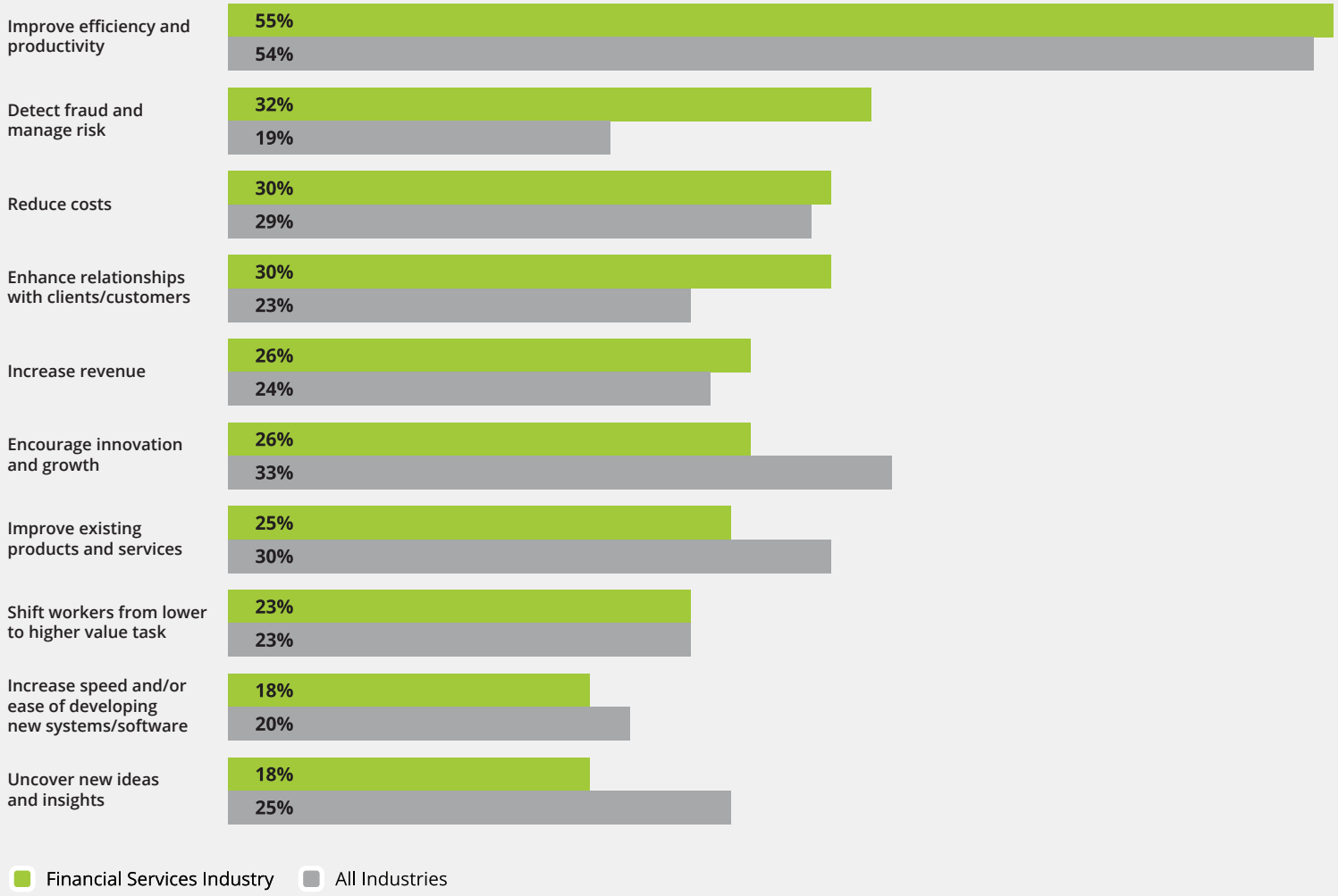


Figure 5 *Q: What are the key benefits you hope to achieve through your generative AI efforts?*

Financial impact is evident, with 31% of respondents reporting their ROI is "Somewhat" or "Significantly above expectations", in line with the cross-industry average. Setting realistic targets fosters a sustainable culture of innovation, enabling organizations to explore AI's potential steadily.

When examining technology interests, "Agentic AI" stands out, with 56% of respondents expressing strong interest. This indicates a desire to automate cognitive tasks and enhance risk mitigation (figure 6). However, interest in "Smaller, less resource-intensive models" is lower at 32%, suggesting missed opportunities for operational efficiency and cost savings.

AI technology development

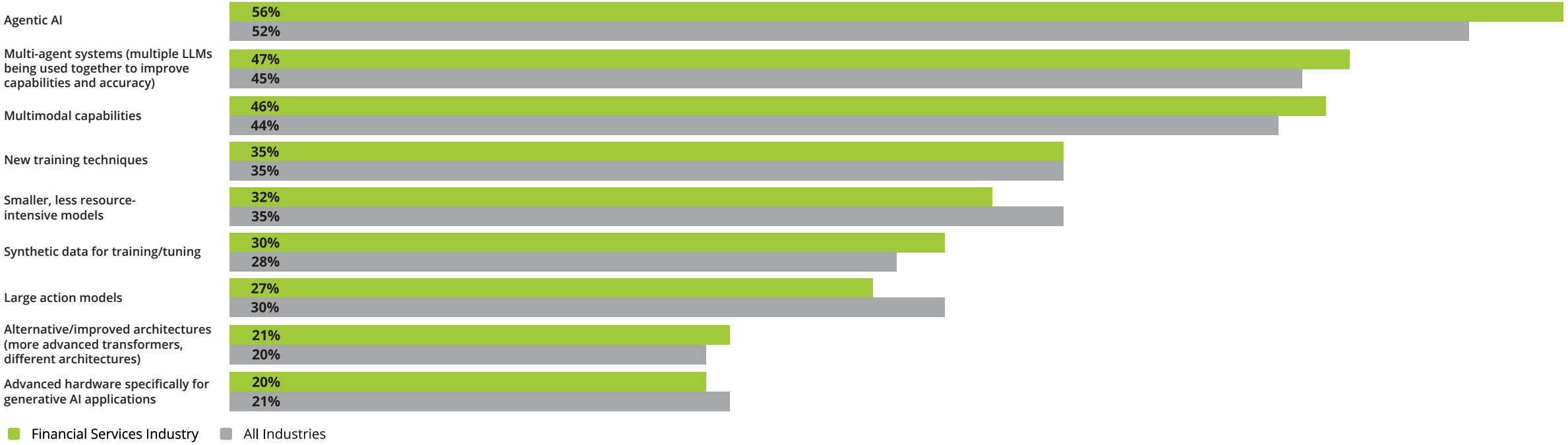


Figure 6 *Q: What generative AI technology developments is your organization most interested in?*

Key insights indicate that financial institutions should leverage their strong expertise in AI to foster innovation while managing risks. Encouraging interdepartmental collaboration and investing in employee education can unlock generative AI's full potential within organizations. Fostering a culture of trust is equally vital to facilitate broader adoption and operational integration. The Financial Services industry must evolve by balancing calculated risk-taking with innovation in generative AI to thrive amid changing market dynamics.

Looking Ahead: Strategizing for an AI-Driven Future in Financial Services

As the Financial Services industry stands on the brink of a significant transformation through generative AI, seizing the opportunities this technology affords requires a strategic and integrated approach. The convergence of AI into the financial landscape presents a dual challenge: integrating cutting-edge technology while upholding robust governance and ethical standards.

To forge a path forward, the industry must prioritize the enhancement of its technological infrastructure. This includes aligning AI adoption with strategic objectives to bridge gaps between readiness and implementation—ensuring compliance with regulatory norms and strengthening risk management. Such alignment not only mitigates potential compliance risks but also positions firms to gain competitive advantages through the deployment of innovative AI solutions.

Central to this transformation is fostering a workforce well-versed in AI. As organizations explore a balance between off-the-shelf AI tools and custom applications for strategic use cases, the need for AI-specific talent development becomes crucial. Investing in upskilling programs—emphasizing both technical fluency and ethical awareness—will equip teams to handle the demands of AI-driven innovation effectively. In parallel, strengthening partnerships with technology and service providers can amplify AI capabilities and support ongoing operational excellence.

Governance frameworks must underlie these efforts. Financial institutions should establish clear, enforceable guidelines to navigate AI's regulatory and ethical challenges, ensuring their solutions align with legal and organizational values. As data becomes pivotal in powering AI, maintaining the highest standards of privacy and ethical use is essential. Deploying transparent and explainable AI systems will enhance trust, address concerns over bias and hallucinations and build a more trustworthy AI landscape.

In addition, fostering greater cross-functional collaboration will be key to unlocking AI's full potential, enabling innovation across departments and breaking down silos that can hinder progress. The industry must also focus on high-priority use cases such as fraud detection and enhanced client engagement, areas where AI can deliver measurable impact. Interest in advanced technologies like Agentic AI signals a strategic intent to automate cognitive tasks and improve risk management, although opportunities remain to optimize operational efficiency through lighter, more resource-efficient models.

In this rapidly evolving environment, the ability to experiment, validate and refine AI solutions quickly is a decisive factor for continuous improvement and industry leadership. Yet, despite growing AI expertise, the industry's relatively cautious approach, as reflected in its below-average prioritization of innovation and growth, may limit broader transformation if not balanced with bolder strategic initiatives. By embedding continuous learning into their cultures, organizations can bridge knowledge gaps and foster a culture of trust at all organizational levels. This cautious optimism is reflected in current ROI, which shows promising returns while encouraging realistic expectations.

The path forward hinges on an approach that synergizes technological prowess with ethical foresight and regulatory intelligence. By embracing such a strategy, the Financial Services industry has the opportunity not only to address structural gaps and embed strong governance, but also to herald a future that is both innovative and responsible, where AI becomes a catalyst for sustainable transformation.

Authors and Acknowledgments

Beena Ammanath
Executive Director
Global Deloitte AI Institute
Email: bammanath@deloitte.com

Jim Rowan
Principal Applied AI Leader
Deloitte Consulting LLP
Email: jimrowan@deloitte.com

Nitin Mittal
Global AI Leader
Deloitte Consulting
Email: rnmittal@deloitte.com

Costi Perricos
Deloitte Global GenAI Business Leader
Deloitte LLP
Email: cperricos@deloitte.co.uk

Dr. Björn Bringmann
Managing Director
Lead AI Institute
Deloitte Consulting GmbH
Email: bbringmann@deloitte.de

Philipp Wendland
Senior Consultant
Deloitte Consulting GmbH
Email: pwendland@deloitte.de

Contact Us

Global Financial Services Industry Leader

Neal Baumann
Email: nealbaumann@deloitte.com

US Financial Services Industry Leader

Ryan Lockard
Email: rlockard@deloitte.com

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About the Deloitte AI Institute

The Deloitte AI Institute™ helps organizations connect all the different dimensions of the robust, highly dynamic and rapidly evolving AI ecosystem. The AI Institute leads conversations on applied AI innovation across industries, using cutting-edge insights to promote human-machine collaboration in the Age of With™.

The Deloitte AI Institute aims to promote dialogue about and development of artificial intelligence, stimulate innovation, and examine challenges to AI implementation and ways to address them. The AI Institute collaborates with an ecosystem composed of academic research groups, startups, entrepreneurs, innovators, mature AI product leaders and AI visionaries to explore key areas of artificial intelligence including risks, policies, ethics, future of work and talent, and applied AI use cases. Combined with Deloitte's deep knowledge and experience in artificial intelligence applications, the institute helps make sense of this complex ecosystem and, as a result, delivers impactful perspectives to help organizations succeed by making informed AI decisions.

Learn More

Methodology

To obtain a global view of how Generative AI is being adopted by organizations on the leading edge of AI, Deloitte surveyed 2,773 leaders between July and September 2024.

Respondents were senior leaders in their organizations and included board and C suite members, and those at the president, vice president and director levels. The survey sample was split equally between IT and line of business leaders. Fourteen countries were represented: Australia (100 respondents), Brazil (115 respondents), Canada (175 respondents), France (130 respondents), Germany (150 respondents), India (200 respondents), Italy (75 respondents), Japan (100 respondents), Mexico (100 respondents), the Netherlands (50 respondents), Singapore (75 respondents), Spain (100 respondents), the United Kingdom (200 respondents), and the United States (1,203 respondents).

All participating organizations have one or more working implementations of AI being used daily. Plus, they have pilots in place to explore Generative AI or have one or more working implementations of Generative AI being used daily. Respondents were required to meet one of the following criteria with respect to their organization's AI and data science strategy, investments, implementation approach and value measurement: influence decision making, are part of a team that makes decisions, are the final decision maker, or manage or oversee AI technology implementations.

All statistics noted in this report and its graphics are derived from Deloitte's fourth quarterly survey, conducted July – September 2024; The State of Generative AI in the Enterprise: Now decides next, a report series. N (Total leader survey responses) = 2,773

The survey data was supplemented with case studies and qualitative findings derived from 15 interviews with executives and AI and data science leaders at large organizations across a range of industries.

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