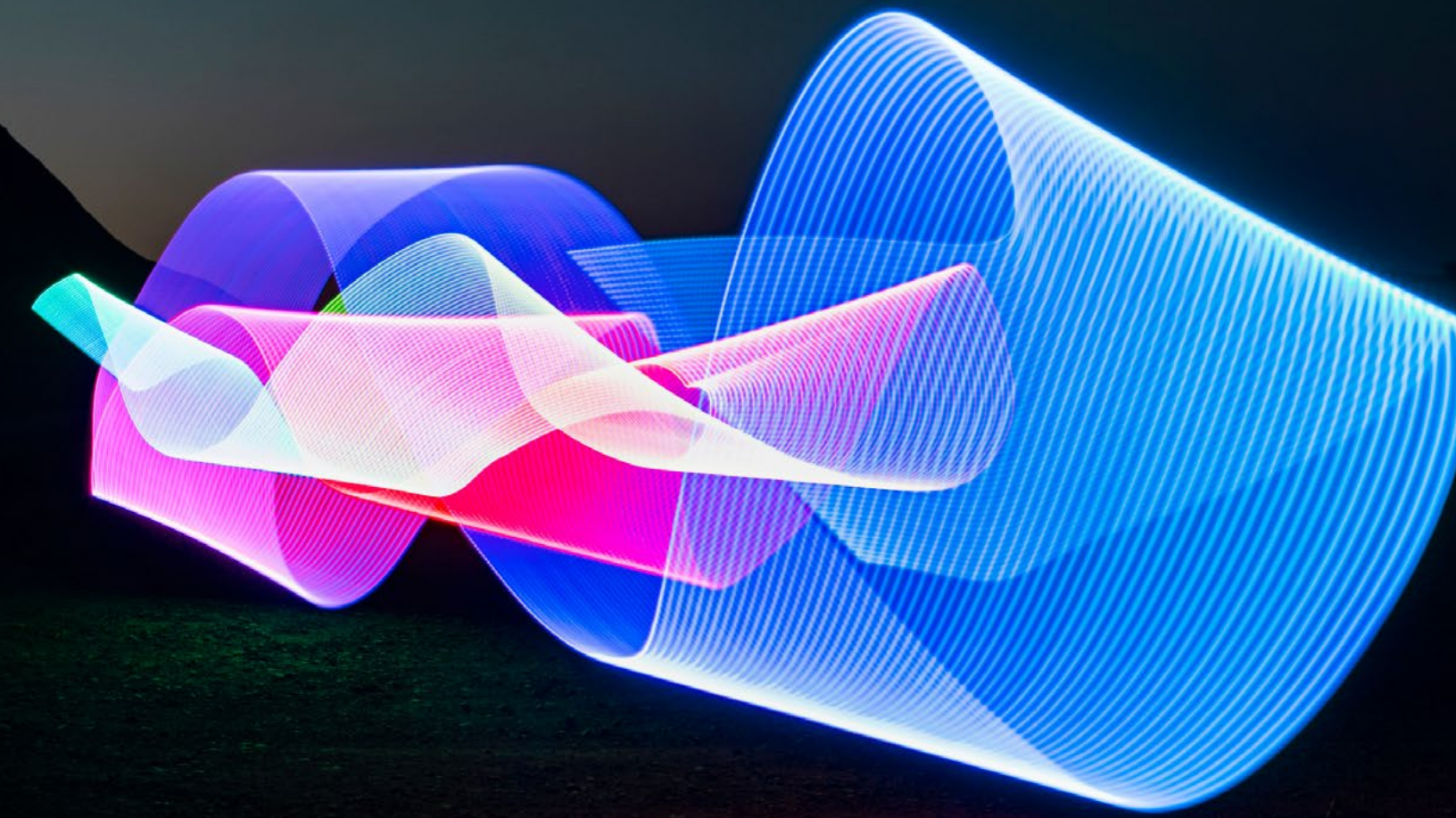
Will you set the GenAI agenda or follow the leaders?

2024 CIO Sentiment Survey

Building a better working world

About the survey

The 2024 EY CIO Sentiment Survey, developed in collaboration with Oxford Economics, gathers insights from CIOs of leading organizations on the challenges they face in pursuing a growth agenda in the age of GenAI. Respondents include 500 US-based CIOs from a broad range of industries: consumer products and retail, health care, life sciences, advanced manufacturing and mobility, tech, media and telecom. The survey, conducted in March 2024, gathers their opinions on a broad array of technology and business challenges, including the depth of their involvement on corporate transactions, progress in adopting emerging technologies such as AI and how they are upskilling talent for the digital future.



Will you set the GenAI agenda or follow the leaders?

The explosive growth of generative artificial intelligence (GenAI) over the past year has placed Chief Information Officers (CIOs) at a critical inflection point: the chance to set the GenAI agenda or see their organizations fall behind. This challenge further emphasizes the critical role of CIOs in helping their organizations create value. While visionary CIOs lead the charge in this new frontier, they are also keeping a watchful eye on a broad spectrum of potential risks, from cybersecurity threats to compliance risks.

The 2024 EY CIO Sentiment Survey provides insights on how CIOs will need to address these challenges to capture the full benefits of emerging technologies. At the same time, it shows how they are expanding their strategic roles within mergers and acquisitions (M&A), growing the business and improving digital maturity.

While nearly half the CIOs say they have yet to fully embrace the hype surrounding GenAI, most are dedicating at least 10% of their technology budget to it (a figure that rises to 13% when the CIO and CEO lead the GenAI agenda together). They are also eager to expand their charge beyond digitizing internal processes to focus on driving growth for the organization. Indeed, many CIOs appear ready to not only embrace the overarching challenge of keeping up with the pace of change but also find a way to articulate a transformative vision for the future of their organization.

However, medium and small organizations (by revenue) also have greater uncertainty about the benefits of GenAI than larger companies. For example, executives from mid-sized organizations are significantly more likely than those at larger companies to say that they did not see GenAI as substantially enhancing the value of their organization enough to justify the hype (43% vs. 36%). That could be because mid-size and smaller companies may not have the robust data sets, talent and infrastructure required to support GenAI and may not be at the maturity level to justify the investment.

1

CIOs and their role in using GenAI to enhance their organization's value

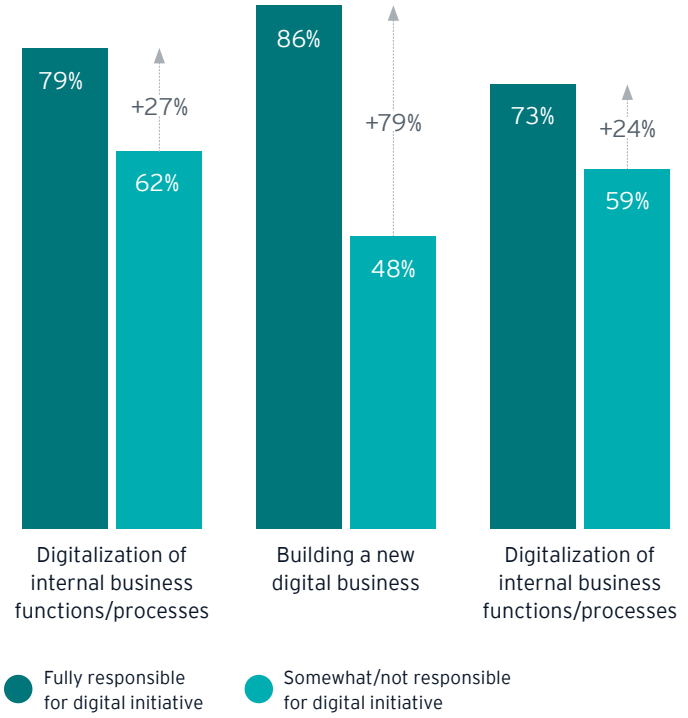
Technology, including GenAI, is an essential component of growth for most companies. However, our survey has found that most are hesitant to see technology as the main growth engine: only 34% of CIOs say their organizations view technology as the primary driver of growth, innovation and resiliency.

This means that the majority of CIOs may be missing an opportunity to take a wider strategic role, expanding their focus from back-office IT work to helping to change the mindset of how tech, including GenAI, can be leveraged for product development and other growth initiatives. CIOs that take full ownership of digital initiatives report a success rate that is at least 24% higher than others. When it comes to building a new digital business, for example, organizations where CIOs take full ownership say their chances for success increase by as much as 79% over organizations where they are somewhat or not responsible. (See figure 1)

Figure 1: CIOs can drive significant improvements when they take more ownership of digital initiatives

Q To what extent are you responsible for the following digital initiatives?

Q Which of the following describes your organization's success in delivering digital initiatives in each of the following areas?



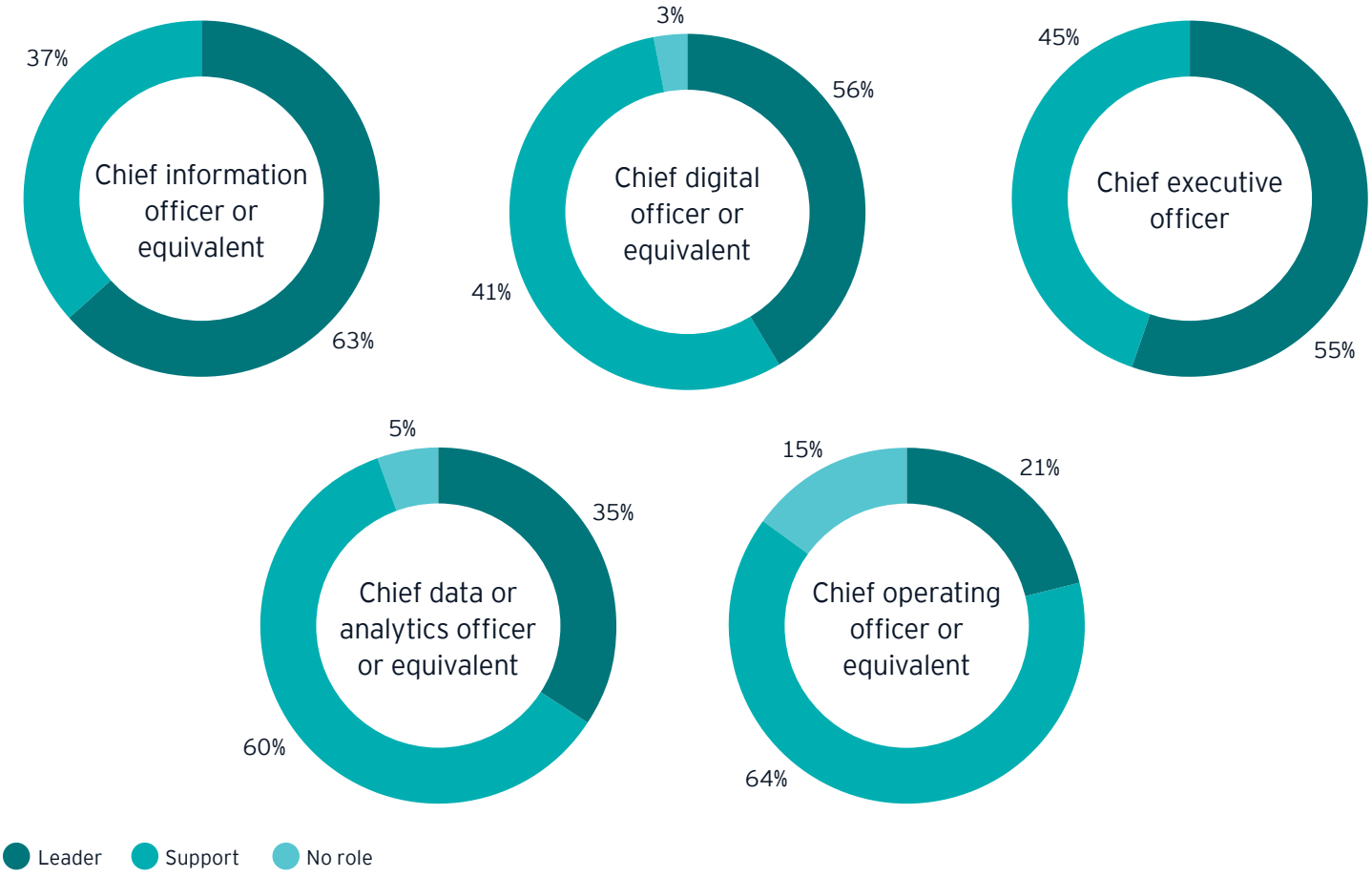
*The highlighted percentage change is determined by calculating the percentage difference in relation to the smaller percentage as the baseline. | n=500

CIOs need to take an active role in expanding GenAI in their organizations. They have the opportunity to be leaders in its adoption, serving as the shepherds of technology with a cross-functional view of how GenAI and other emerging technologies are used across the organization. Among the considerations they will need to monitor include talent requirements, how to integrate GenAI capabilities into the technology fabric, and the potential risks of the technology.

In many cases (63%), CIOs are already the leaders of the GenAI agenda, most closely followed by the CEO (55%) (see figure 2). However, a team-oriented approach may be more effective: 84% of those that say GenAI is jointly led by the CIO and CEO achieve or expect to achieve 2x ROI on GenAI investment. Conversely, only 56% of organizations where GenAI is led by the CIO alone meet this benchmark.

Figure 2: CIOs are the leaders of the gen AI agenda

Q Who is leading the generative AI agenda in your organization? Please provide the level of involvement across the roles below.



n=494

CIOs can also temper the GenAI hype that surrounds the business world. Only about half (49%) of CIOs see GenAI substantially enhancing the value of their organization. When we talk with CIOs, we have found that some have been cautious as they deploy certain solutions in the face of legal, ethical and regulatory concerns.

49%

see GenAI substantially enhancing the value of their organization.

Reasons they may have questions about the technology could include:

- Having enough of the right data to train GenAI and the right governance around that data.
- Cybersecurity related to integrating and deploying the technology.
- Not having the right skill set to develop, deploy and monitor GenAI solutions.
- Previous emerging technologies that have not yet lived up to the hype, such as the metaverse, blockchain and quantum computing.

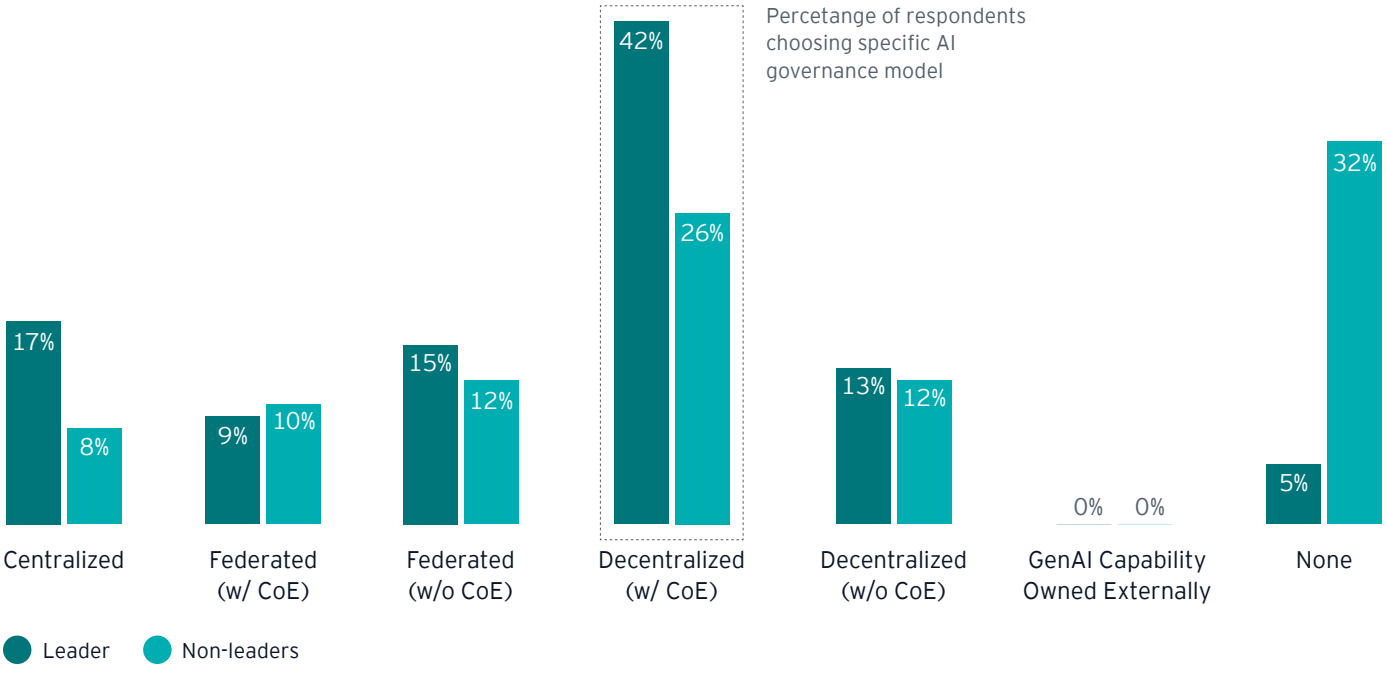
How GenAI is deployed also varies: 41% utilize a decentralized model, which enables a greater focus on the customer and democratization of GenAI with stronger autonomy and agility in local teams.

Those with a decentralized model are also less likely to name "lack of the data and infrastructure platforms to implement GenAI" as their biggest concerns as a decentralized model can enable access to more diverse data and robust models by sharing data across a network.

The most popular governance model for driving the GenAI agenda within the organization is decentralized, with a center of excellence (CoE) that can be co-led by the CIO (See figure 3). In this model, the CoE supports individual business units as they implement GenAI solutions. In this way, the CoE can provide greater expertise, centralized support and executive decision-making to help make sure that GenAI is adopted in the same manner, with the same guardrails, throughout the organization. The CoE can also help secure the right partnerships to further develop the organization's GenAI platform. Of those that have realized or expect a 2x return on GenAI investment, 42% use a decentralized model with a CoE.

Figure 3: GenAI leaders* are focused on decentralized AI governance models with a center of excellence

Q Which of the following best describes the prevalent generative AI model (architecture, structure and governance) in your organization?



*Leaders in GenAI are early adopter CIOs who have responded to having a GenAI-based solution in production and have or are anticipating to receive more than 2x in return on investment (ROI) in GenAI. Leaders n=80 | Non-leaders n=420

Key takeaways for CIOs:

1. **Embrace a strategic role in digital growth:** Take a wider strategic role in the organization by promoting technology, including GenAI, as a primary driver of growth, innovation and resiliency, while being realistic about its potential.

2. **Be a sounding board:** Develop a strong relationship with the C-suite and board of directors and become their go-to advisor for all things technology, specifically focusing on technology as a revenue enabler rather than merely a back-office service provider.

3. **Foster collaboration with the CEO:** Adopt a team-oriented approach by jointly leading the GenAI agenda with the CEO to achieve or expect to achieve greater return on GenAI investment.

4. **Keep on top of GenAI risks and talent needs:** Monitor and address potential risks associated with GenAI — such as data governance, cybersecurity and skill set requirements — to ensure safe and effective deployment of the technology.

5. **Promote a decentralized model with CoE:** Advocate for a decentralized governance model with a CoE to democratize GenAI. This allows for greater focus on the customer, autonomy and agility in local teams, while maintaining consistency and support across the organization.

6. **Form a robust ecosystem of partners:** Help make sure that the organization leverages a deep ecosystem so as not to centralize risk in one or two partners.

2

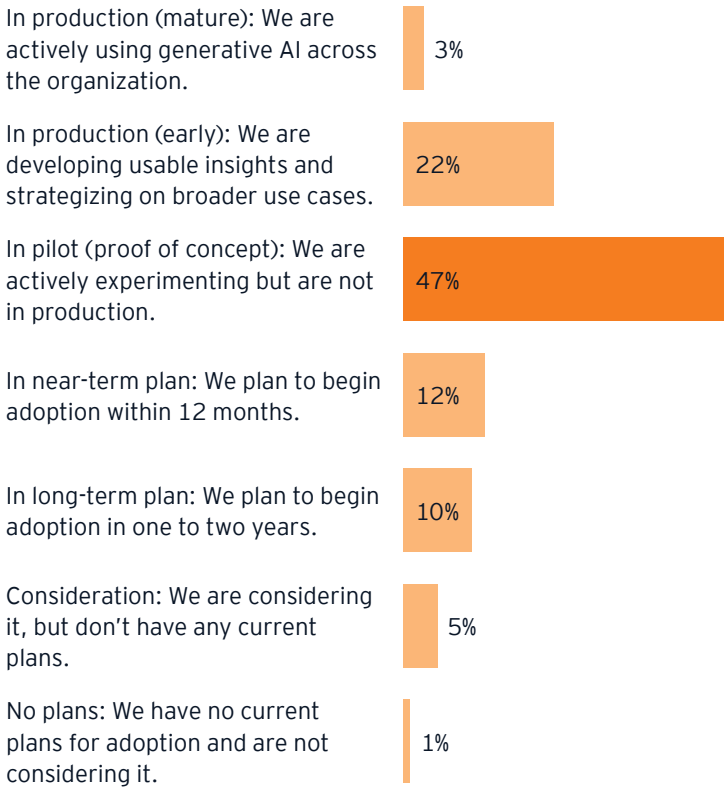
How companies are using or thinking about GenAI

The majority of CIOs say their organizations are already using GenAI or actively experimenting with it. Nearly half (47%) have a GenAI solution in either the pilot or proof-concept stage, though only a quarter have a solution in production (see figure 4). One reason could be that they are trying to examine a wide range of use cases rather than focusing on the few that can more immediately scale and drive value.

Enabling greater reach and driving revenue-generating opportunities was named as the top-ranking reason for moving forward with GenAI by the most CIOs (37%), with 27% citing its potential for reinventing their business model. One in five, or 19%, say their top reason for deploying GenAI is to reduce costs.

Figure 4: For many CIOs, GenAI is still in pilot and proof-of-concept stages

Q What changes do you anticipate in your annual technology budget associated with generative AI in the next 12 months to respond to business and organizational needs?



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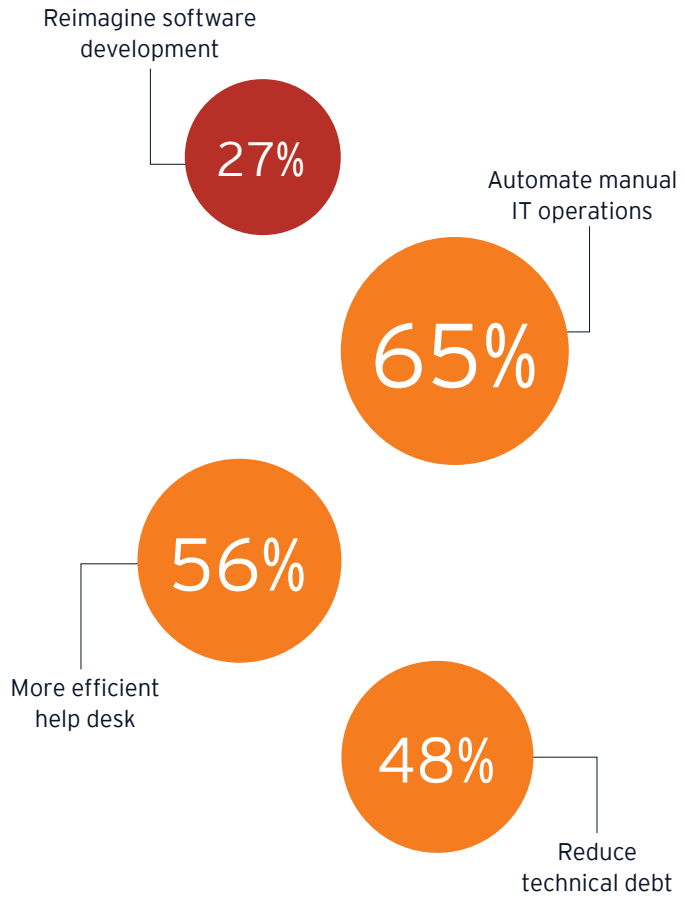
Despite the stated preference for revenue generation, though, the specific use cases they are currently pursuing are geared more toward efficiency: automating manual IT operations (65%), providing more efficient help desk or self-service support (56%) and reducing technical debt (48%). (See figure 5)

This varies among different types of companies, though: private companies tend to view GenAI as an opportunity for reinvention, while public companies are more likely to consider it a tool for lowering costs. In other words, many public companies are using GenAI to automate, not transform.

Figure 5: Most CIOs are making GenAI investments in back-office functions and internal facing use cases

Q What changes do you anticipate in your annual technology budget associated with generative AI in the next 12 months to respond to business and organizational needs?



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This could be because earlier uses for non-generative AI have already proven the use cases for automation, while revenue generation is the next step. To enable growth, CIOs can pivot to a mindset that embraces revenue generation and efficiency through process and business reinvention. In some ways this is already happening: many CIOs say that they are expanding their responsibilities beyond digitizing internal processes (53%) to building new digital products and services (47%). The progress may be slow, however: only about one-quarter (26%) of CIOs say they are responsible for revenue-generating, customer facing software products. The vast majority of those CIOs are in the technology or consumer products industries, and they have more than five years in product development.

94% of organizations that have allocated more than a quarter of their budget to product development have a GenAI initiative in pilot or production.

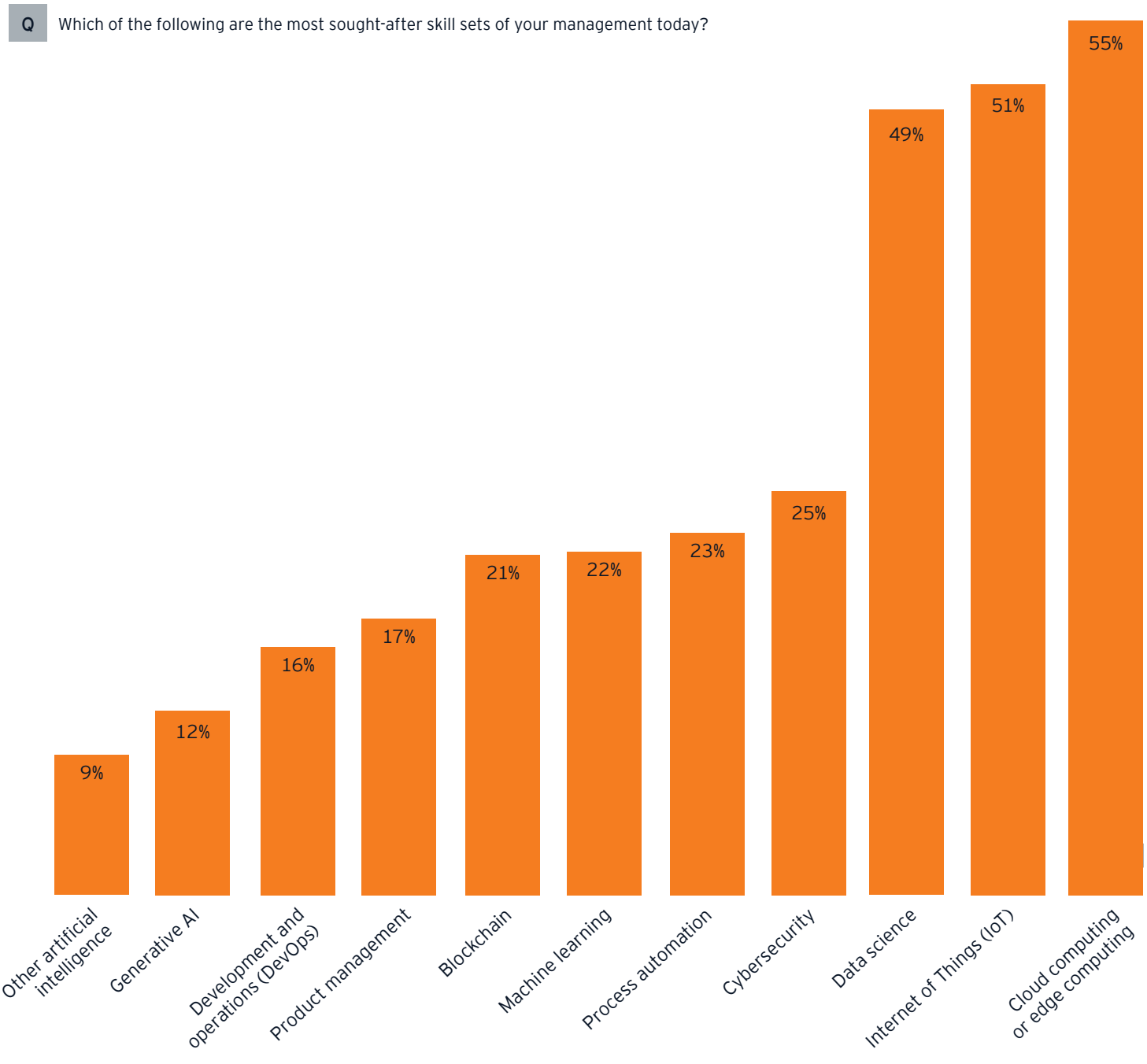
Areas where companies are utilizing GenAI to drive revenue growth include mining consumer feedback and preferences to develop new products, and using GenAI to help scale personalization in both product development and marketing. For example, one personal accessories company has been able to generate significantly more revenue on products that have been developed in part by using GenAI. The company even uses the technology to develop product descriptions that will better attract and resonate with consumers. On average, 14% of technology budgets are targeted at product development. As that figure rises, so does the likelihood that the organization is using GenAI: 94% of organizations that have allocated more than 25% of their budget to product development have a GenAI initiative in pilot or production.

At the same time, organizations that regard technology as a primary driver of growth are twice as likely to have a GenAI initiative in production.

Organizations that are further along in their GenAI adoption are also more likely to seek AI/machine learning (ML) skill sets in talent to support growth. Overall, however, only 11% of CIOs say they are hiring for skills for GenAI and just 8% for other artificial intelligence skills. In contrast, more CIOs are hiring for skills such as cloud and edge computing (55%), Internet of Things (51%) and data science (49%) that they are already prepared to deploy at scale. (See figure 6)

To enable GenAI within the enterprise, CIOs must shift the culture to a product-driven mindset that can also influence the skills they are seeking from talent.

Figure 6: GenAI ranks low in the most sought-after skills



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Key takeaways for CIOs:

1. **Prioritize revenue-generating GenAI applications:** Shift focus from primarily efficiency-oriented use cases to developing GenAI solutions that enable greater reach and revenue opportunities, in line with the top reason cited by CIOs for moving forward with GenAI.

2. **Expand digital product development:** Increase the proportion of the technology budget allocated to product development to enhance the likelihood of successful GenAI initiatives.

3. **Accelerate production:** Choose a small number of projects to test concepts rather than analyzing all possible use cases.

4. **Focus on transformation:** Harness the capabilities of GenAI to offer completely new products and services, rather than automating existing processes.

5. **Invest in AI/ML talent:** Address the talent gap by actively hiring for GenAI and other AI skills to support the growth and successful implementation of GenAI initiatives.

3

GenAI as transaction tool and acquisition target

CIOs see the value of GenAI both as a way of improving the M&A process and as a target for M&A or joint ventures to enhance the organization's capabilities.

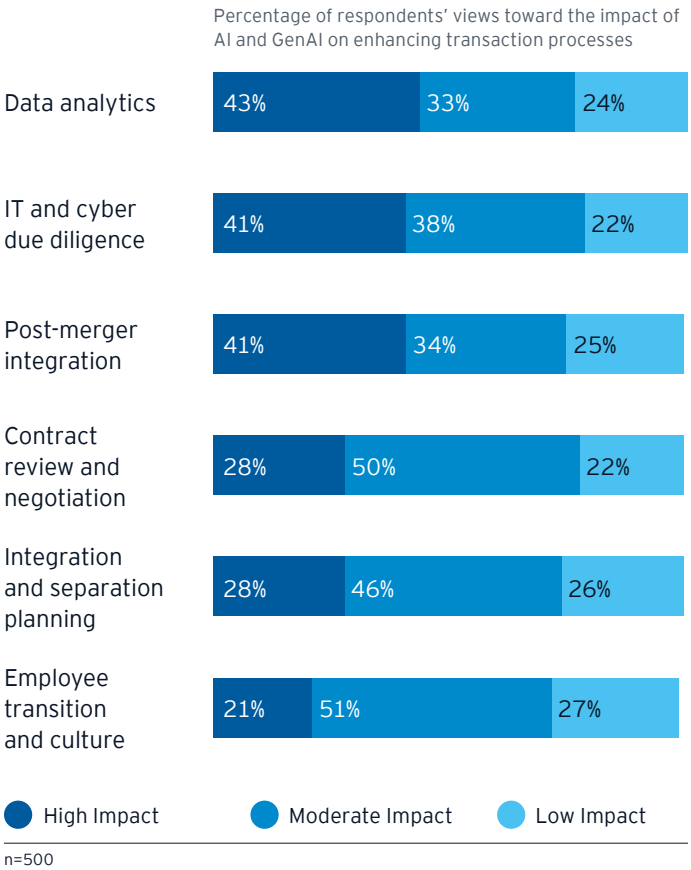
The technology can have a high impact on several phases of the transaction lifecycle, CIOs say, including data analytics (43%), IT and cyber due diligence (41%), and post-merger integration (41%). (See figure 7)

In one case, we have worked with a client that built a comprehensive playbook to support their teams as they execute on M&A. They use GenAI to mine the knowledge base to allow their teams to quickly mobilize on deals in a consistent way.

Almost all CIOs are in a position to leverage the benefits of GenAI in transactions: 96% say they were involved or will be involved in a corporate transaction and almost two-thirds of CIOs (64%) have been involved with six or more transactions. GenAI also may make deals quicker to complete and less expensive to execute.

Figure 7: CIOs foresee GenAI improving the transaction process

Q To what extent do you foresee the adoption of artificial intelligence and generative AI enhancing the transaction process in the following areas?



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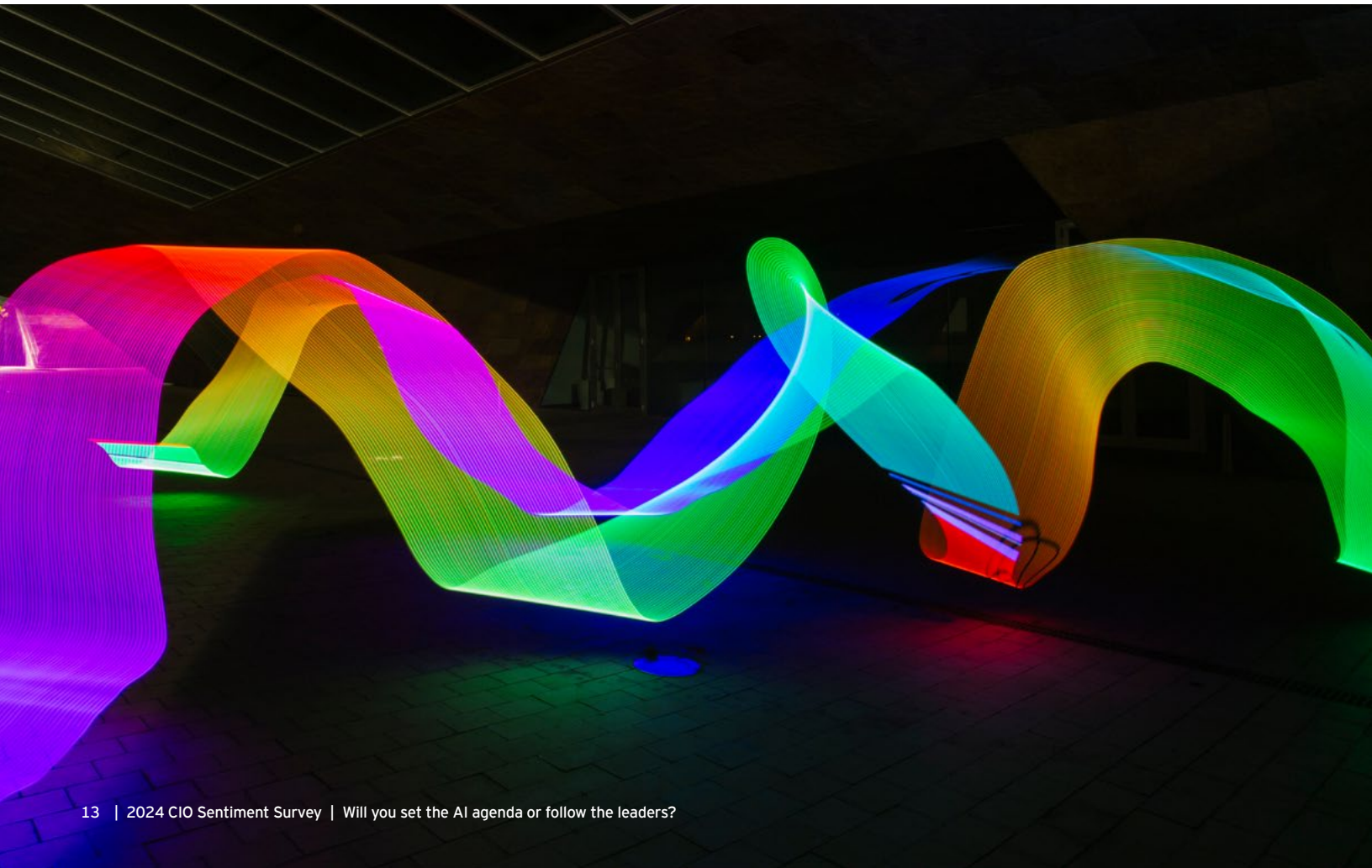
Adding GenAI through M&A/JVs

When it comes to adding GenAI capabilities, the vast majority of CIOs expect to acquire or partner with GenAI software platforms or businesses (86%). Acquiring or partnering with another company, rather than building in-house, can speed up adoption in an organization while also allowing the rest of the business to focus on core competencies.

However, meeting technology goals in M&A has proved challenging: only 32% of CIOs say they "significantly" met deal objectives such as IT synergies and closing the deal on time in past transactions. One reason could be that CIOs become less involved as the transaction lifecycle progresses. In fact, only 37% say they have significant involvement post-close. Remaining involved even after the close can give CIOs the ability to continue to address cybersecurity risk as IP assets are transferred and third-party vendors are brought online as necessary.

More broadly, CIOs, as the technology leaders, can use the transformative nature of a transaction to address long-standing technology issues in the organization and to engage fellow business leaders in areas such as supply chain and finance to address those issues, such as technology debt.

86% plan to acquire or partner with a GenAI-based software platform or business



Fortunately, most CIOs already say they have significant engagement in the early stages of a transaction, including portfolio strategy (74%), due diligence (73%), and target selection (68%). (See figure 8) This is a shift from the historic role of CIOs, who were pulled into deals only after the transaction perimeters and targets were set. Being involved earlier can also allow CIOs to help influence and shape the M&A strategy and address some of the biggest challenges they see in an acquisition: cybersecurity risks (53%), data integration (50%), cultural misalignment (44%), and TSA scope, governance, management and execution (43%). (See figure 9)

Figure 8: CIO involvement throughout the deal lifecycle

Q To what extent do you engage with the decision-making process across the following transaction lifecycles?

Percentage of respondents that were significantly engaged or lead decision-maker in each transaction phase

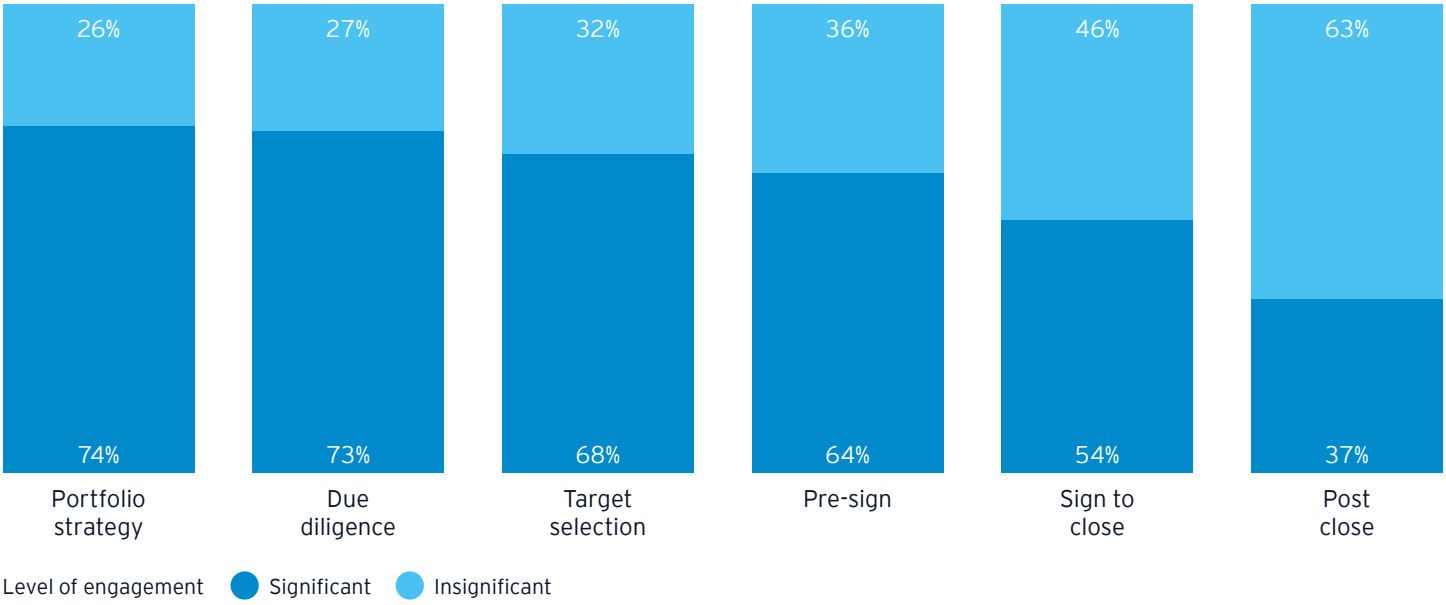
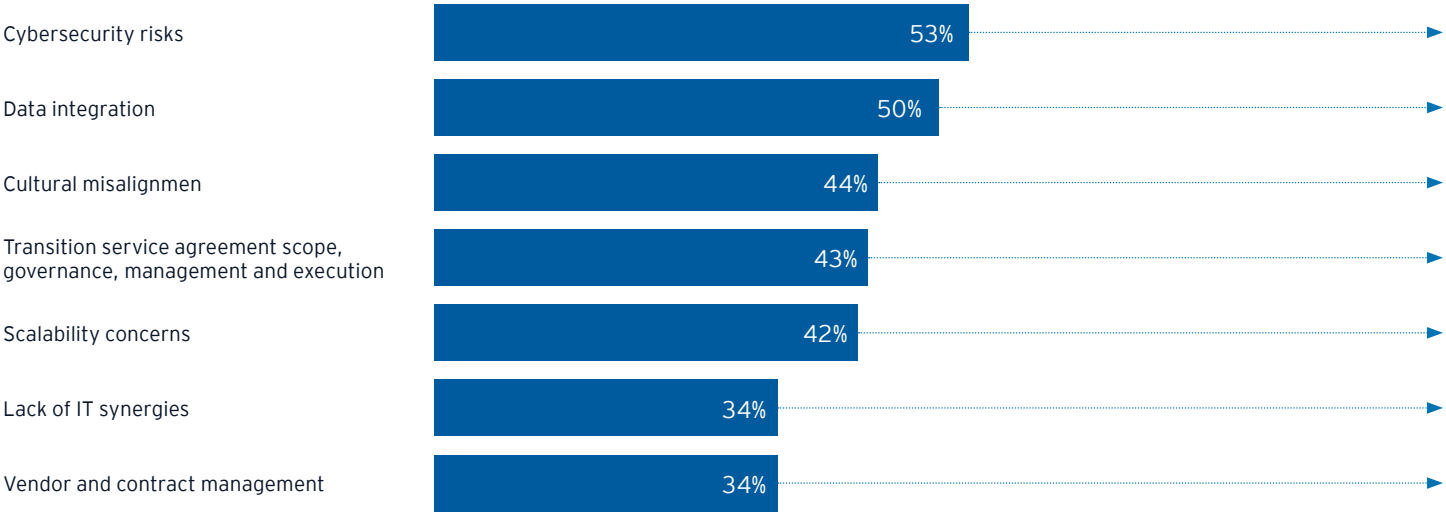


Figure 9: Biggest challenges in acquisitions

Q Which of the following are the top challenges that you face during the M&A lifecycle?



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Key takeaways for CIOs:

1. **Enhance M&A processes with GenAI:** Utilize GenAI technology to improve various phases of the M&A transaction lifecycle, including data analytics, IT and cyber due diligence, and post-merger integration, to make deals quicker and less expensive to execute.

2. **Pursue GenAI acquisitions and partnerships to speed adoption:** Actively seek to acquire or partner with GenAI software platforms or businesses to rapidly integrate advanced capabilities into the organization and maintain focus on core competencies.

3. **Maintain involvement post-close:** Ensure continued involvement in the post-close phase of M&A transactions to address cybersecurity risks, IP asset transfers and integration of third-party vendors, as well as to influence long-term technology strategy.

4. **Leverage transactions for technology improvement:** Use the transformative nature of M&A transactions to address long-standing technology issues within the organization.

Conclusion

The role of the CIO is evolving and GenAI gives them the opportunity to expand their influence, potentially leading to more C-suite and board options going forward. To embrace this opportunity, CIOs need to become change agents, shifting their organizations' GenAI focus to transformation from mere automation. They are the leaders that should shape how GenAI is scaled to allow agility as competition around the technology grows, securing the right technology and infrastructure platforms, while also building the right cybersecurity and ethical guardrails.

Importantly, they also need to play a key role throughout the M&A lifecycle and in recruitment and training to make sure the organization has the skills and capabilities, not just to fill today's gaps but also to leverage tomorrow's growth opportunities as GenAI improves and becomes a more essential part of business.

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