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Sprint to excellence – Voice of
technology leaders
Deloitte India CIO Program

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Executive summary

In India, organisations consider digital transformation to be a strategic imperative due to the country's fast-paced digital age and ever-evolving technological landscape. Organisations have witnessed significant economic, geopolitical and technological disruptions in the past few years. Amid these disruptions, new challenges and opportunities are evolving for organisations and management, reshaping ways of doing business.

Deloitte conducted a survey to assess the current state of digital transformation in India among key technology leaders (CIOs, CTOs and CISOs) of Indian businesses. Per the survey, organisations are implementing digital initiatives across the value chain. It also emphasises the strategic importance of optimising core operations and employee skillsets to succeed in this transforming digital landscape. It also highlights how businesses perceive cybersecurity, cloud computing and the evolving role of emerging technologies, such as generative AI in their operations over the next few years.

As they embark on their digital transformation journey, Indian businesses face challenges such as optimising investments and building the right digital capabilities. Addressing these challenges will be crucial for organisations to succeed in this digital age. They must navigate a complex technology environment, including technical, organisational and process complexities, while simultaneously reskilling and upskilling existing talent and acquiring new talent.

This report explores how IT leaders are driving digital transformation and their changing role in it. As organisations navigate the technology landscape, IT leaders play a crucial role in harnessing the potential of new technologies to propel their organisations forward. Technology mentorship programmes are emerging as a solution to help companies bridge skill gaps, spark innovation and empower employees in the fast-changing tech environment. These programmes connect seasoned professionals with each other for knowledge-sharing and technology transfer.





Introduction

Indian companies are embracing this change with strategic urgency as businesses across the world realise the importance of digital transformation for their survival. Notably, the role of the CIO is undergoing a significant transformation. CIOs are no longer confined to the sidelines of IT operations; instead, they are increasingly becoming key figures in shaping business strategies and driving productivity gains. Deloitte's CIO Sprint to Excellence survey discusses the digital adoption landscape in India, exploring how companies are using technology to thrive.

As part of the survey, Deloitte reached out to technology and information officers across industries to gain insights into the latest technological advancements their organisations are going through and how they are using transformations to drive business growth and success. We specifically examined which functions in these organisations are experiencing the most significant transformations due to digital disruptions. This insightful analysis sheds light on areas where Indian businesses are prioritising digital investments and how these transformations are shaping the future of the Indian industry.

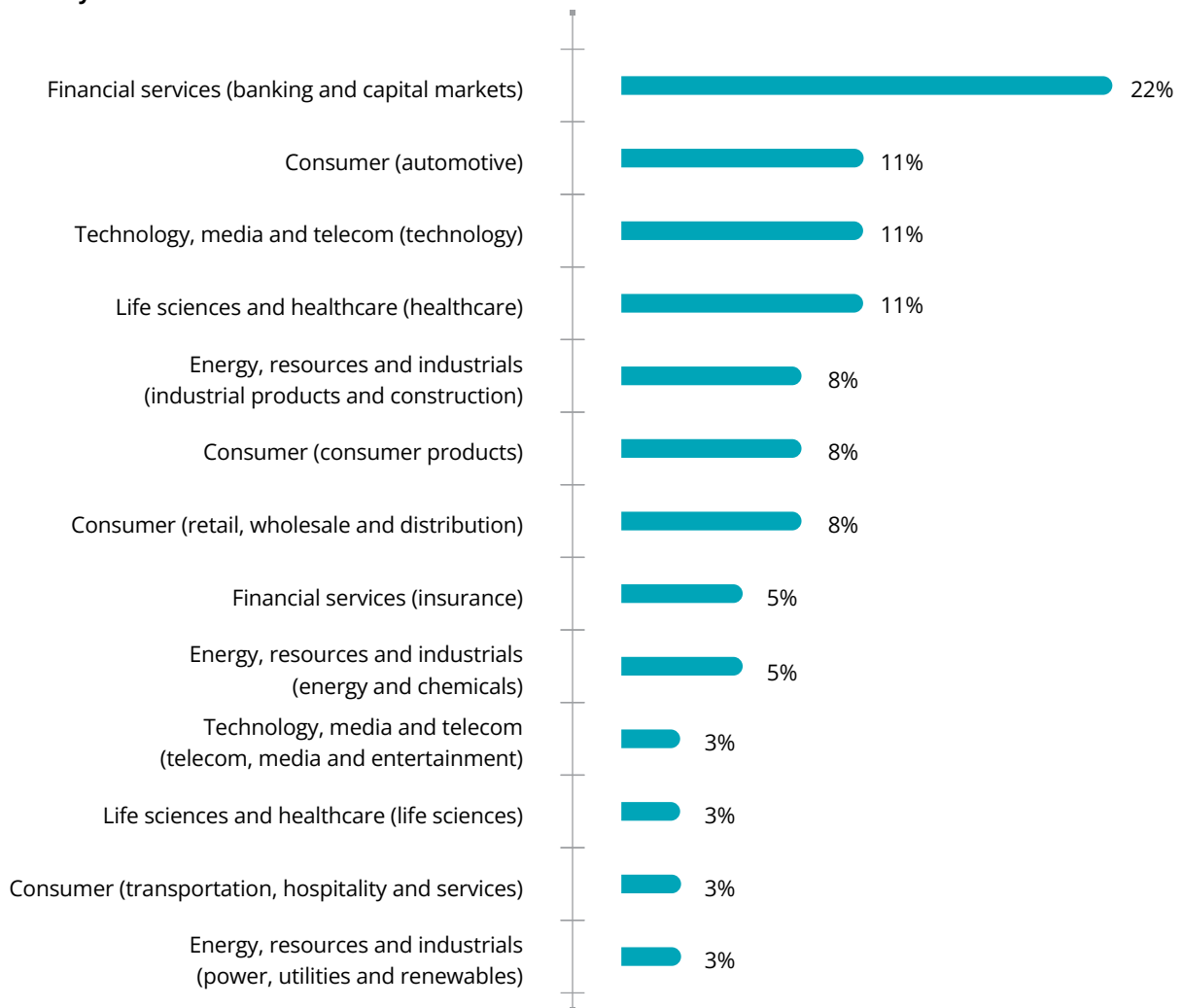
Methodology

Survey participants: A blend of IT leadership and industry expertise

A total of 37 technology executives participated in the survey. The survey garnered responses from a broad spectrum of IT leaders, with 51 percent holding senior positions, such as Chief Information Officer (CIO), Chief Data Officer (CDO) or Chief Information Security Officer (CISO). Chief Technology Officers (CTOs) comprised another 16 percent and other IT leaders accounted for the remaining 33 percent.

In terms of industry, the survey reflects a diverse participant pool. The consumer and financial services sectors had a strong presence, accounting for 30 percent and 27 percent of the respondents, respectively. The survey also captured valuable insights from other industries, including Energy, Resources & Infrastructure (ER&I) at 16 percent, Technology at 14 percent and Life Sciences & Healthcare (LSHC) at 14 percent. This blend of respondents provided a well-rounded perspective, encompassing IT leadership expertise and industry-specific knowledge.

Company industry



Source: Deloitte internal survey

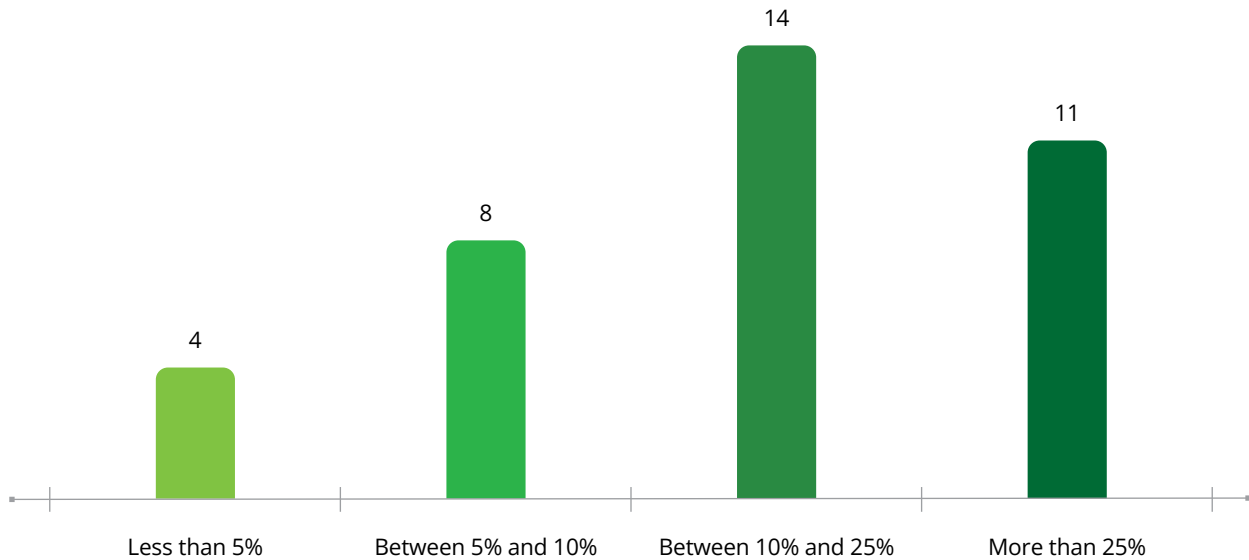
We also gathered information about the annual IT budget allocated to enhance or integrate new technology. The survey highlights a strong focus on digital transformation within specific industries.

- A significant proportion of respondents from the financial services (21 percent) and consumer goods (18 percent) sectors allocated more than 10 percent of their IT budgets towards upgrading or adopting new technologies.

- A particularly high level of digital investment is witnessed in the ER&I industry. About 66 percent of respondents from this sector reported allocating more than 25 percent of their IT budget to digital transformation initiatives.

The survey underscores the importance of technology, with only 10 percent of respondents allocating less than 5 percent of their IT budget to upgrades or new tech adoption. This highlights the significant shift towards technology adoption across industries.

What proportion of your company's annual IT budget do you allocate to invest in upgrading or adopting new technology (this would include spending on acquiring new assets, talent, L&D and collaborations with start-ups and universities)?



Source: Deloitte internal survey



Current digital transformation – Priorities and hurdles

The survey delves into valuable insights, with a specific focus on the major trends, challenges and applications of digital transformation efforts.

Cloud computing, AI/ML and cybersecurity are preferred technologies

About 65 percent of respondents chose cybersecurity, followed by 62 percent choosing cloud computing and 54 percent picking AI/ML as their top three priorities for digital adoption.

Cybersecurity was expected to be the top priority due to the growing reliance on technology. The survey highlighted a rising focus on cybersecurity measures within organisations and across sectors, as they store sensitive data in the cloud and use interconnected systems. The consumer industry stood out as a leader in prioritising cybersecurity investments, with 31 percent of the respondents prioritising this area. ER&I and LSHC were the other two industries where 21 percent of respondents preferred allocating significant resources for cybersecurity. While the FS and TMT sectors continue to spend on cybersecurity, given the regulatory mandates and the continuous digitisation that these sectors have witnessed, our survey indicates that other sectors are also catching up on digital transformation and are prioritising security investments to keep their businesses resilient.

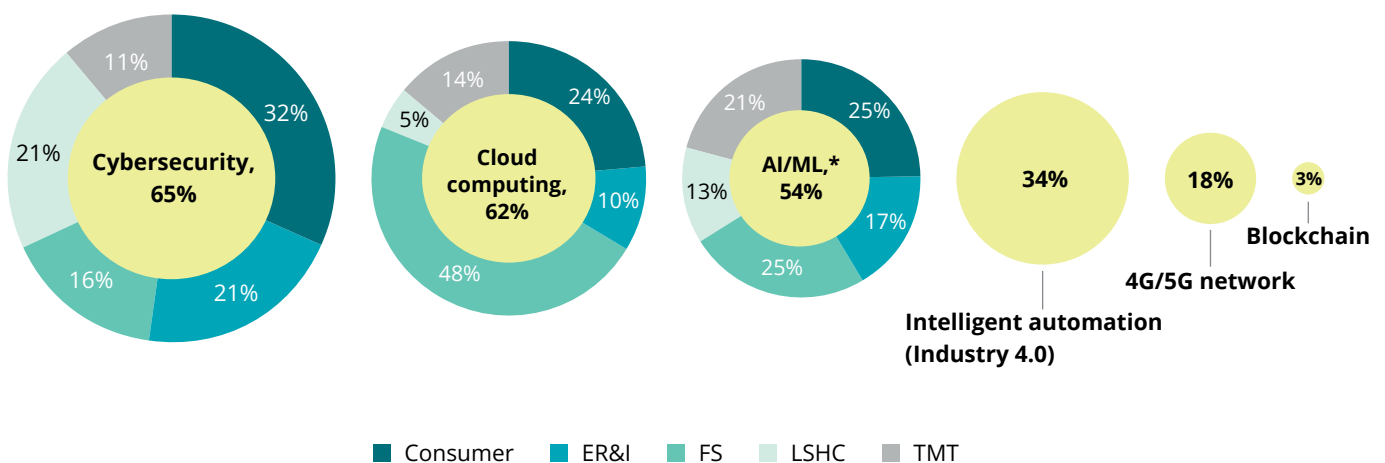
Cloud computing was among the other top technologies due to the unparalleled scalability and agility it offers to businesses. With a significant increase in corporate data being stored in the cloud, its adoption across various sectors has gone up sharply. Survey results suggest its predominance in financial services (48 percent) and consumer (24 percent) sectors that handle massive consumer databases and require complex analytics. The rise in local data centres is believed to significantly increase customer confidence to take their workloads to the cloud.

Artificial Intelligence/Machine Learning (AI/ML) is the other technology that is gaining traction. There is a surge in interest stemming from the immense potential of AI/ML to automate tasks, improve decision-making and drive innovation. It may have captured the imagination of respondents to understand the potential. The survey reveals a shared focus on this technology within the financial services and consumer sectors, with both sectors having 25 percent of respondents prioritising it. This is an interesting trend, where both consumer and FS sectors are leaning towards cloud adoption and AI/ML investments, indicating the propensity of the sectors towards using data for higher performance, prediction, customer experience, among others.

On the other hand, the enthusiasm for Blockchain appears to be muted, with only 3 percent of respondents embracing them for their digital transformation journey.

The findings from the survey suggest a clear direction for businesses. Cybersecurity, cloud computing and AI/ML are no longer niche considerations but essential tools for success in the digital age. Organisations that strategically integrate these technologies can unlock a multitude of benefits, all of which would help increase efficiency, improve decision-making, enhance innovation and boost security.

What are the top three priority technologies that your organisation is invested in?



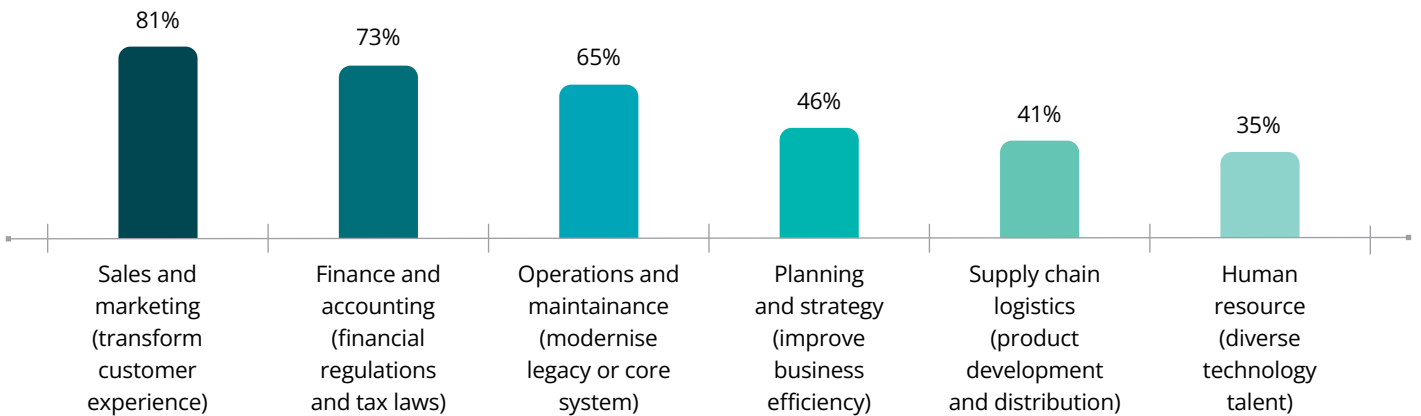
Source: Deloitte internal survey
 Note: Updated with GCC summit data (total 65 responses)
 (advanced analytics and data science)*

B2B and B2C models are seeing maximum traction in technology adoption; sales, marketing, financing and accounting are witnessing digital disruption due to changing customer priorities, regulations and tax laws.

About 81 percent of survey participants highlighted that they have prioritised the B2B business model, while 62 percent of executives viewed B2C as the other significant model where most current digital transformation technologies are being integrated. The emphasis on B2B and B2C models in digital transformation likely stems from the significance placed on

customer experience, operational efficiency and data utilisation. Overall, B2B and B2C digital transformation are likely helping businesses (surveyed) to meet the ever-evolving needs of their customers, optimise operations and unlock new growth opportunities.

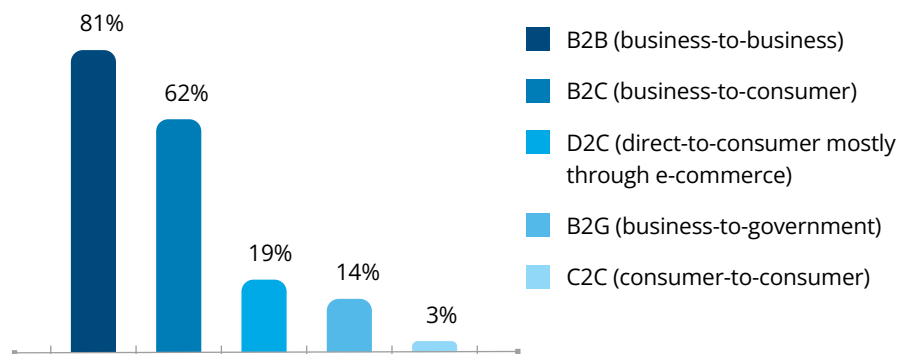
Which business function do you find your chosen technologies most being applied? (please mention the use cases across functions)



Source: Deloitte internal survey

The survey revealed that 81 percent of participants are implementing leading-edge technologies in the sales and marketing function, while more than 73 percent are prioritising digital transformation in the finance and accounting business domain. Both these departments are data-rich (including personal data), and directly impact a company's revenue (sales and marketing) and costs (finance and accounting), so they are more likely to adopt newer technologies. The survey identified the Financial Services (FS) and consumer industries as the leading sectors prioritising these business functions to transform with technologies.

Mostly, across which business models do you see the most application of your current chosen technologies?



Source: Deloitte internal survey

The complexity of the technology environment and talent-related concerns are significant roadblocks to technology adoption

The complexity of the technology environment, reskilling and upskilling the existing talent and acquiring and retaining talent were the top three challenges for respondents while dealing with chosen technologies. The other two were associated with securities, policy and regulations.

The survey shed light on the challenges that organisations encounter in the process of digital transformation. About 85 percent of participants identified the complexity of the technology environment as the most daunting challenge. This complexity is not just technical but encompasses a three-pronged issue:

- The technology itself
- The organisational changes required
- The need to revamp existing processes

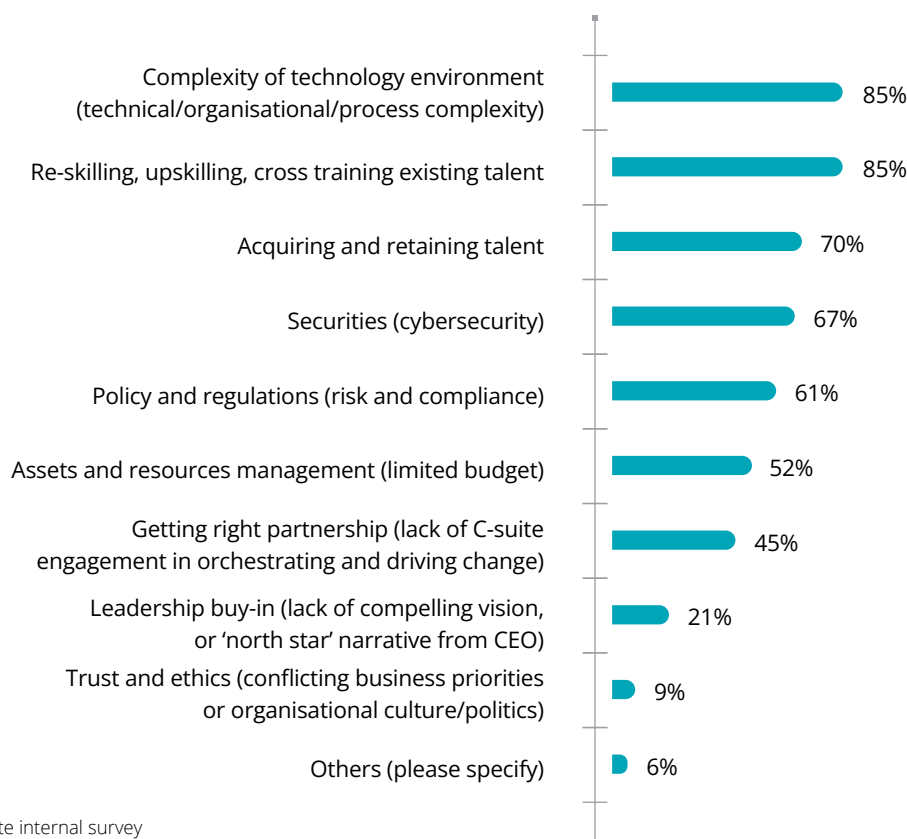
Integrating diverse technologies can be disruptive, potentially forcing a complete overhaul of how distributed systems are managed. Furthermore, scaling digital infrastructure to keep pace with ever-increasing business needs and demand adds another layer of technical difficulties.

Talent-related issues also posed a significant challenge, per the survey. Organisations struggle to upskill, reskill and cross-train their workforce. Recruiting and retaining talent with the necessary digital skills is also a major concern.

The consumer sector emerged as the industry most affected by the trifecta of these challenges. Challenges arise from integrating newer technologies with legacy systems, managing data across a global supply chain and overcoming resistance to change within siloed departments.

A study published in Deloitte CEO survey insights revealed that a lack of skilled personnel is a top concern for CEOs embarking on digital transformation. Organisations need employees with the right skills to effectively implement and utilise new technologies. However, the lack of availability of these niche skills makes it difficult to find qualified personnel.

Top five challenges that you are dealing with using the chosen technologies (weightage)



Source: Deloitte internal survey



Future focus – Evolving priorities in the next 2–3 years

The section highlights the evolving trends across organisations, thereby embracing new technological possibilities and their use cases to maintain a competitive edge in the ever-changing digital landscape.

GenAI will be taking CIOs' mindshare for investments in the next 2-3 years, followed by Industry 5.0 and augmented reality

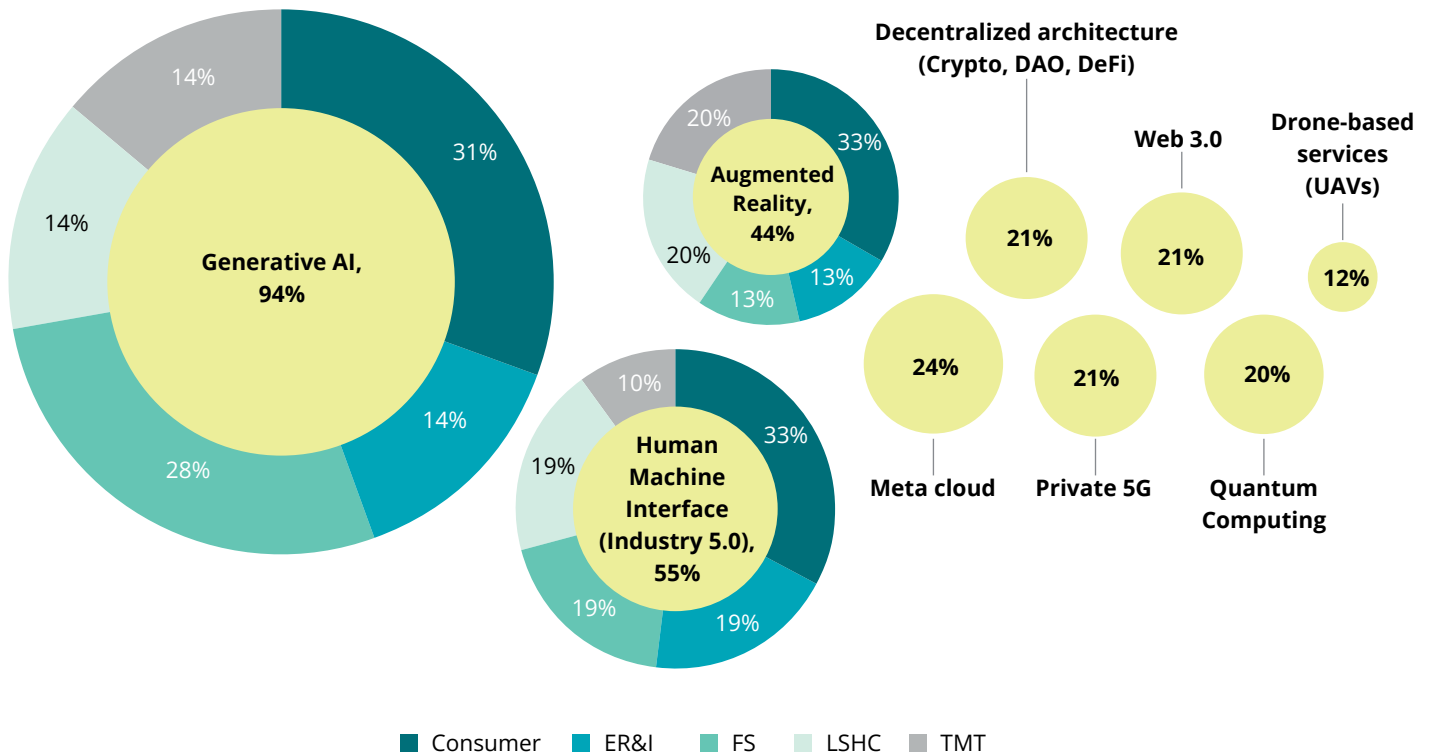
Among the next three technologies, GenAI turned out to be the most prominent choice. During the survey, 94 percent of the participating respondents identified generative AI as a disruptive technology of the future and are eager to explore GenAI's potential across their businesses.

The survey revealed that many organisations are on the cusp of expanding their technology initiatives and adopting GenAI to spearhead future digital transformation, particularly in industries such as financial services, consumer goods and TMT. The respondents in these sectors probably recognised the capability of GenAI in analysing complex data and trends, improving customer interaction, automating tasks and improving efficiencies.

Through increased investments, CIOs want to foster innovation and gain a competitive advantage in a dynamic digital landscape.

After GenAI, the transformative potential of Industry 5.0 and augmented reality technologies emerged as the next top technologies, with 55 percent and 44 percent of the respondents favouring these two, respectively. This indicates a move beyond automation and efficiency (Industry 4.0) towards a human-centric approach. Respondents highlighted a strong correlation between Industry 5.0's focus on human-machine collaboration and the potential for immersive technologies to empower workers within the Industry 5.0 framework as key drivers of future digital transformation. Consumer (which includes automobiles) led the pack, with 33 percent of respondents looking at this as an investment area in the next couple of years, followed by ERI and LSHC. These trends hint towards factory floor modernisation, continued IT-OT convergence and an increasing focus on resilience and sustainability.

Which are the three next technologies that you are betting big on over the next two to three years?



Source: Deloitte internal survey

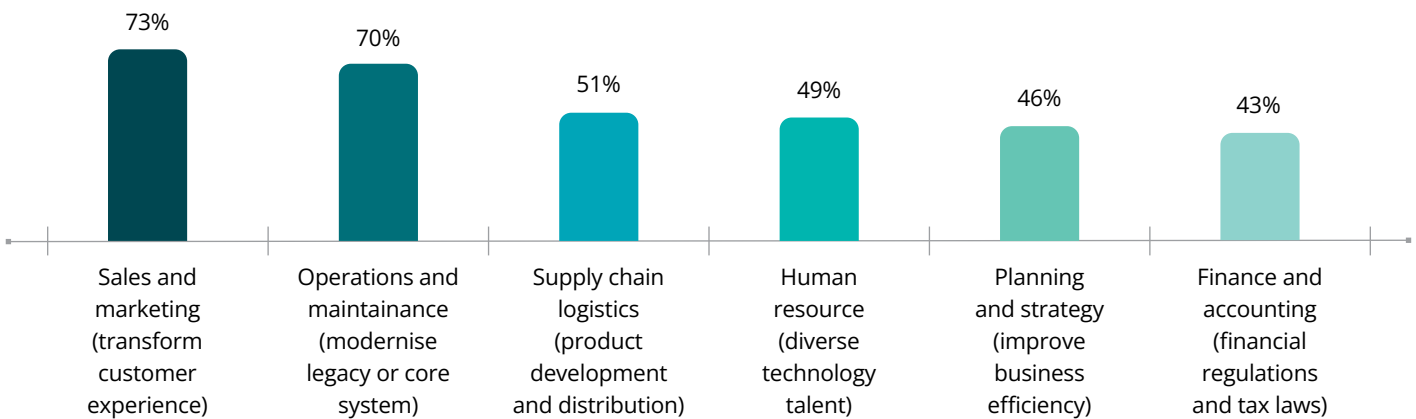
Note: Updated With GCC summit data (total 65 responses)

In the next 2–3 years, chosen technologies will continue to transform sales and marketing, operations and maintenance, with a rising focus on enhancing the supply chain and human resources

The survey findings highlighted the continued application of future technologies into sales and marketing (73 percent) and operations and maintenance (70 percent). Sales and marketing emerged as the most popular choice for tech implementation, in the current context and the next 2–3 years. This puts the spotlight on the ever-evolving role of technologies in transforming customer experiences. Interestingly, two key areas, which were not prioritised for the current application of

technologies, gained importance in the future application of technologies—supply chain logistics (product development and distribution) and human resources (diverse technology talent). In 2–3 years, it will be interesting to watch the interplay of technologies such as Gen AI, Industry 5.0 and spatial computing in bringing predictive insights and streamlining production and supply chains, as well as using technology to improve talent management and talent experience.

Where (which business function) do you see the application of these futuristic technologies in the next two to three years?



Source: Deloitte internal survey

“Talent” and “technology complexity” will continue to be the key challenges in the future

Dealing with reskilling and upskilling the existing talent, acquiring and retaining the talent and the complexity of the technology environment were identified as the key challenges to adopting future technologies.

Concerns around talent topped the chart, as 86 percent of respondents felt reskilling, upskilling and cross-training of existing talent (to optimally utilise new technologies or build solutions/architect the new technology stack) to be a major challenge in their organisation’s digital transformation journey. About 48 percent of respondents reported that attracting and retaining talent with the required skills will be difficult in the future.

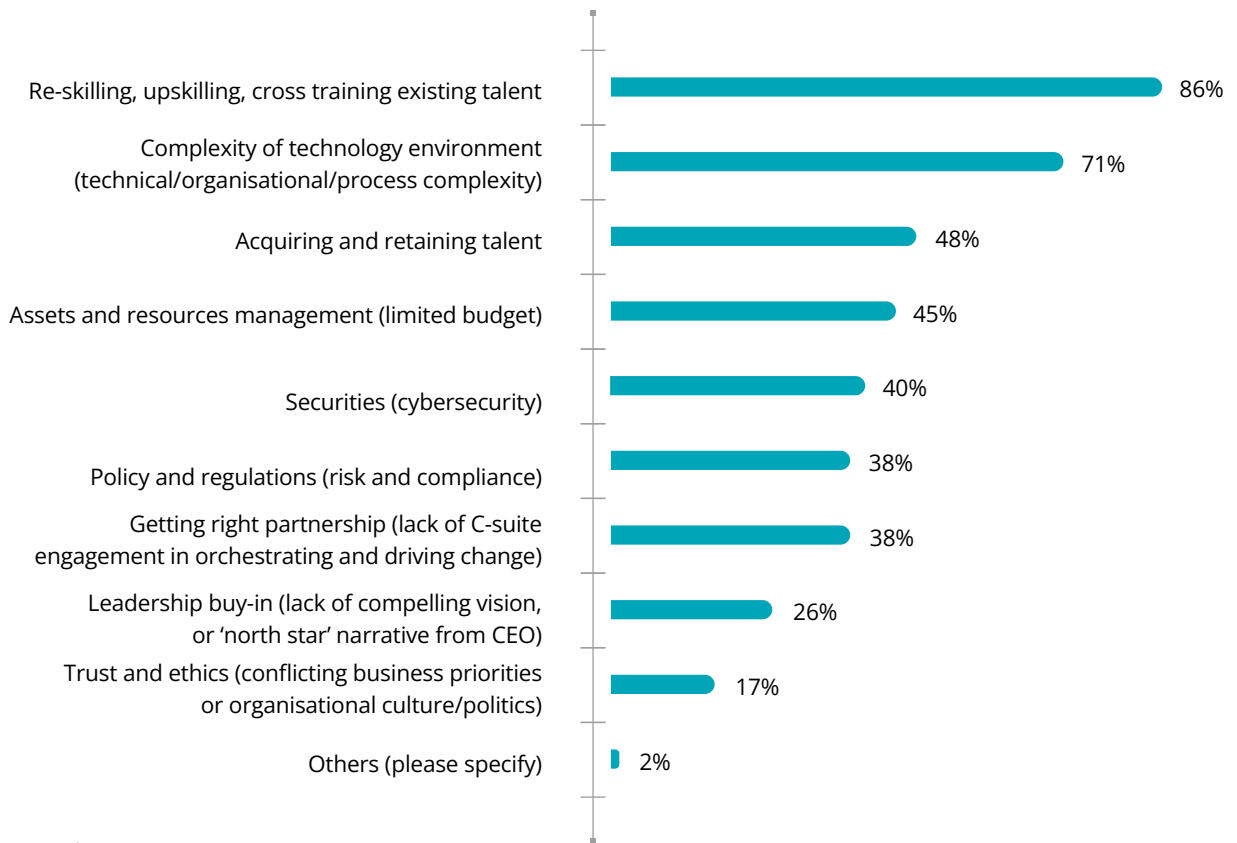
About 71 percent of respondents felt that managing and integrating complex technological ecosystems into their current business operations or model seamlessly was going to be a major challenge. With technological advancement, the number and variety of devices, applications and data sources are exploding. CIOs expressed concerns about the interoperability of these diverse future technologies, devices, applications and

data sources with their existing business models. While most industries are affected, the survey highlighted that the above two challenges are especially prominent in the financial services, TMT and consumer goods industries.

Among other major concerns were budget constraints, cybersecurity, getting the right partnership and the risks associated with regulations and compliance. A few respondents also expressed concerns (not listed in the survey options) about the return on investment in future technologies and the uncertainties associated with the evolution of generative AI and its business applications.

This also puts into perspective the need to have mutually agreed-upon KPIs (between business and tech leaders), tracking ROIs, regularly reporting and an overall focus on communication and collaboration to make any technology investment successful. Some of the Deloitte global insight papers, such as **‘Unleashing value from digital transformation: Paths and pitfalls’** and **‘Bridging measurement divides in AI, cloud, and cyber,’** put the spotlight on these aspects.

Top five challenges that you are dealing with using the chosen future technologies over the next two to three years



Source: Deloitte internal survey

Note: Updated with GCC summit data (total 65 responses)





Technology and leadership beyond IT

This section focuses on the methods through which tech leaders can effectively lead teams comprising diverse talents and competencies aimed at driving enterprise transformation.

Most technology leaders see themselves as “tech enthusiasts” spreading knowledge, guidance and awareness and taking organisations towards a tech-driven future

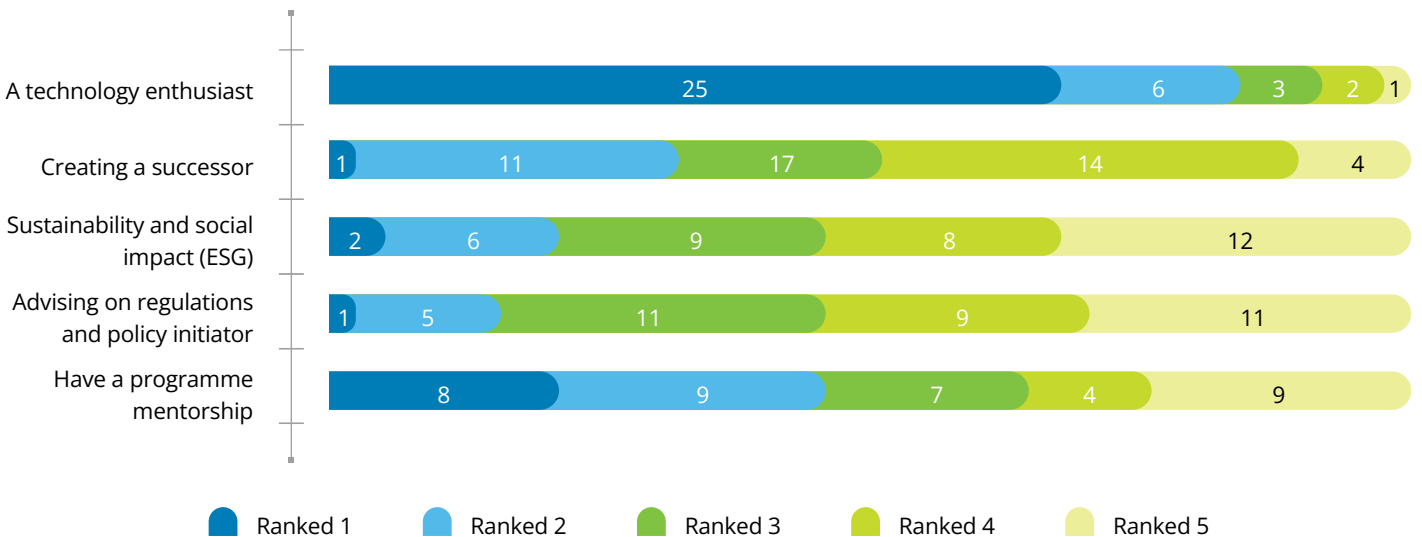
About 75 percent of the participants considered themselves to be technology enthusiasts.

Technology mentorship programmes have become popular within organisations as a means to bridge the skill gap, foster innovation and empower employees in an ever-evolving technological landscape. These programmes connect experienced professionals (mentors) with less experienced individuals (mentees) to share knowledge, guidance and support.

The role of technology leadership has evolved from merely facilitating business operations to actively steering business

growth and creating value. Today's tech leaders must balance their role as catalysts for change while also guaranteeing the resilience and environmental sustainability of their infrastructure. They are required to collaborate and unify with leaders throughout the organisation, anticipate future business needs, and uphold scalability and adaptability. As those responsible for transformative initiatives, they should possess business insight, foster strong relationships with stakeholders and cultivate executive leadership skills to deliver measurable impact.

How do you see your role evolving as a mentor/leader?

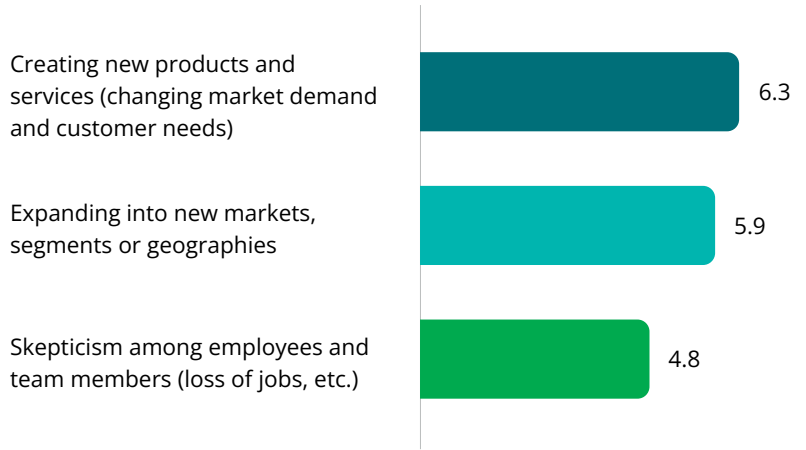


Source: Deloitte internal survey

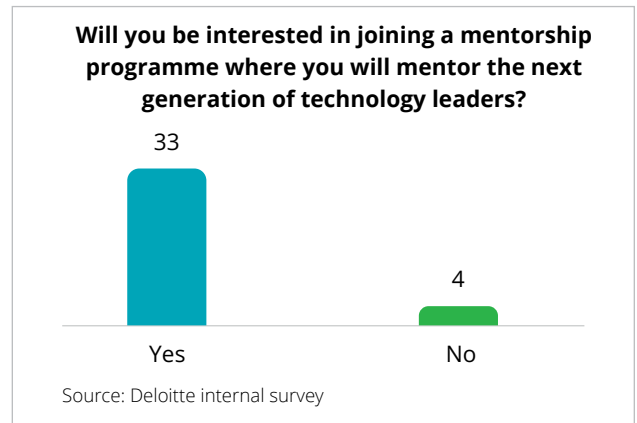
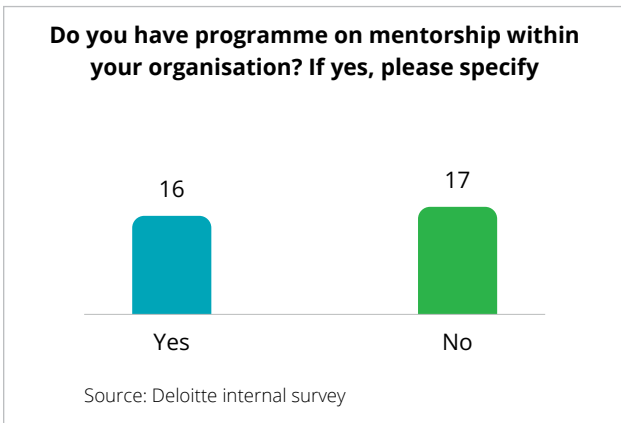
Leaders recognised the challenge of creating new products and services that meet changing market demands and customer needs. Leaders are interested to join a mentorship programme that will mentor next generation technology leaders.

Changing market or customer demands pose a significant challenge for technology leaders. Accurately predicting the nature and pace of future market changes can be difficult. Technology leaders need to ensure their technology stack and roadmap are aligned with and adaptable to changing market and customer demands, balancing short-term and long-term needs. Moreover, market understanding and adaptation, building local infrastructure and resources, managing remote teams and collaboration, and logistics and supply chain management are a few key challenges while expanding into new markets and geographies. Effectively managing organisational change and fostering a culture of adaptability are crucial for successful technology transformation.

How challenging has been for you as a leader to digitally transform your business model? (Averaged when rated on the scale of 1 (low) to 10 (high))



Source: Deloitte internal survey



The survey revealed that less than 50 percent of organisations have formal, well-structured technology mentorship. While the majority lack a formal mentorship programme, they are actively engaged in various cross-functional initiatives and committees, such as the digital transformation committee, which comprises members from different levels and ranks. Additionally, significant training and learning activities occur within these structures.



Key takeaways and recommendations

Key takeaways

The role of CIOs is transitioning from traditional to strategic, driving business growth. It is becoming increasingly evident that:

- There will be a shift in the preferred technologies, and CIOs will have to remain agile to adopt future technologies across business functions. While cybersecurity, cloud and AI/ML will continue to remain important, generative AI and human-centric technologies (such as IoT and AR) will be some of the key drivers of future digital transformation.
- The focus of technology applications in sales and marketing, operations and maintenance will likely continue. That said, CIOs will also have to shift the technology application prioritisation towards supply chain logistics (product development and distribution) and human resources (diverse technology talent).
- Challenges associated with talent and technology complexity will continue to be the biggest bottlenecks to technology adoption. Upskilling and reskilling the workforce will be essential to bridging the talent gap.
- Most leaders still perceive them as technology enthusiasts, and they are interested in facilitating mentorship programmes. They see creating new products and services as per changing customer requirements and expanding to newer geographies as the top challenge.

Recommendations

Invest in data-driven decision-making

Use analytics and data to make informed decisions around technology adoption and optimising resource allocation. It is time to set up the data infrastructure to also get the most out of the GenAI era.

Bridge the talent gap

Implement robust upskilling and reskilling programmes to equip the workforce with the necessary skills and help them navigate new technologies.

Embrace new partnerships

Consider forming strategic partnerships with technology providers and talent development specialists to accelerate the technology transformation journey.

Prioritise cybersecurity

Implement robust cybersecurity measures, proactive threat detection and incident response protocols to mitigate cyber risks.

Empower tech leaders to drive growth across B2B and B2C models

Strengthen the collaboration between technology leadership and business functions such as sales and marketing. These functions often demonstrate a higher readiness for technology adoption, making them ideal partners for tech-driven innovation. Be prepared for a wider application of technology in areas such as supply chain logistics and human resources.



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