



Technology, media, and telecom lead the charge on generative AI

The race is on

Introduction

Executives in the technology, media, and telecom (TMT) industries aren't just ready for generative artificial intelligence (AI), they're eager for it. They see it improving productivity, conferring competitive advantage, and driving growth. They're more confident than most business leaders that their technology infrastructure is ready for this new form of AI, and their organizations are already exploring use cases for it.

These are among the top findings from a March 2023 KPMG survey of 300 global executives across multiple industries, including 60 from the TMT sector. (In June, we conducted a follow-up survey with 200 US executives and highlight notable differences where relevant.) With the survey, we sought to find out how generative AI might impact various industries and gauge how eager and prepared companies are for its adoption.

Forty-one percent of executives in the TMT sector strongly agree that generative AI represents a significant opportunity for their company to grow its revenue or market share, compared with 31 percent of all executives surveyed. And 60 percent strongly agree that companies that leverage generative AI will have a competitive advantage over their peers, versus 48 percent of all executives. Indeed, a majority of TMT executives see generative AI adoption not as an option but an imperative. Fifty-three percent say their company must adopt the technology if it wants to stay competitive. In our June survey, 79 percent said generative AI will deliver meaningful value to their business.

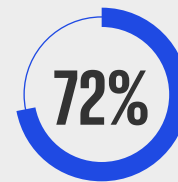
TMT executives also are more likely than most (72 percent versus 63 percent) to anticipate that generative AI will encourage innovation among the workforce. In the June survey, 100 percent of TMT respondents strongly or somewhat agreed that generative AI will make employees more creative and thoughtful.

Despite all this optimism, 28 percent of TMT executives also strongly agree that generative AI represents a significant threat to their company's position in the market—versus 18 percent of all executives. These concerns likely revolve at least in part around the fact that generative AI plays more than one

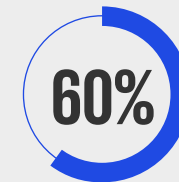
role for technology companies. On one hand, they are eagerly exploring use cases for generative AI within their own operations; 15 percent have already implemented at least one generative AI solution, versus 9 percent of all companies. But many technology companies also are developing generative AI tools and applications for their customers, and broad use of this technology will almost certainly invite further government regulation of those who provide it. In April, for example, China unveiled draft measures to manage generative AI services,¹ and in May the European Union agreed on tighter draft rules around generative AI as part of its AI Act.²

That said, TMT companies in some ways are ahead of the crowd when it comes to planning for managing the risks associated with generative AI. Thirty-seven percent of TMT executives say their organization has evaluated risk and risk mitigation strategies around the use of the technology and is in the process of implementing them, versus 25 percent of all companies. In June, 76 percent said risk mitigation of privacy concerns with personal data was a high priority. TMT executives also are much more likely to say their organization assigns a high level of priority to managing and mitigating risks related to the weaponization of generative AI (45 percent, versus 28 percent of all executives).

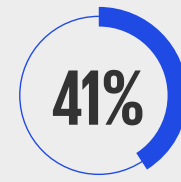
TMT executives have a positive view of generative AI



Anticipate generative AI will encourage innovation among the workforce



Strongly agree companies that leverage generative AI will have a competitive advantage



Strongly agree generative AI represents a significant opportunity to grow revenue or market share

¹ Josh Ye, "China proposes measures to manage generative AI services," Reuters, April 11, 2023

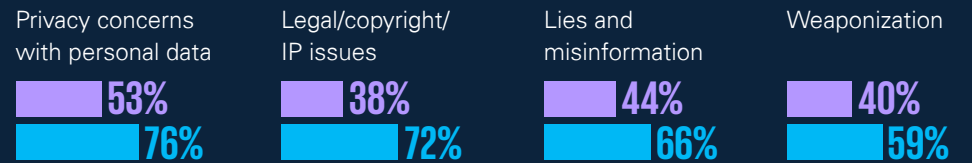
² Foo Yun Chee, Martin Coulter and Supantha Mukherjee, "EU lawmakers' committees agree on tougher draft AI rules," Reuters, May 11, 2023

Most TMT executives are positive about generative AI but well-aware of the risks

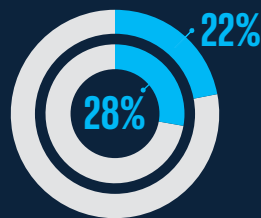
Generative AI impact: TMT executives see generative AI as the top emerging technology, and the sentiment has grown stronger.



Generative AI and risks: For TMT executives, the highest priority for risk management remains privacy concerns with personal data.

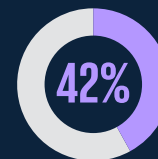


Generative AI and growth: In June, 28 percent of TMT executives saw generative AI as a valuable tool for generating new revenue streams, in contrast to 22 percent of overall respondents.

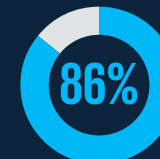


Outer circle - Overall
Inner circle - TMT

Generative AI and risk management:

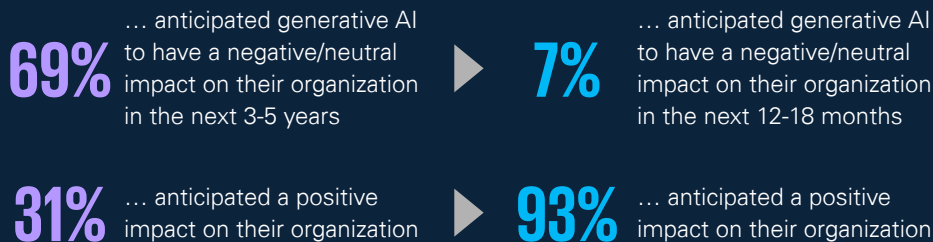


of TMT executives reported that risk and risk mitigation were highly significant concerns

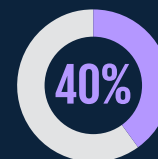


Expressed high confidence in their ability to mitigate risks

Generative AI and organization impact: In recent months, TMT executives' perceived positive organization impact of generative AI has increased.



Generative AI partnerships:



of TMT executives were considering collaborating with an external partner

In June, TMT executives said the most important characteristics in a partner are:

- 34% ▶ Complimentary technology to existing systems
- 31% ▶ Specific focus on a use case aligned with their business
- 28% ▶ Data security and privacy credentials

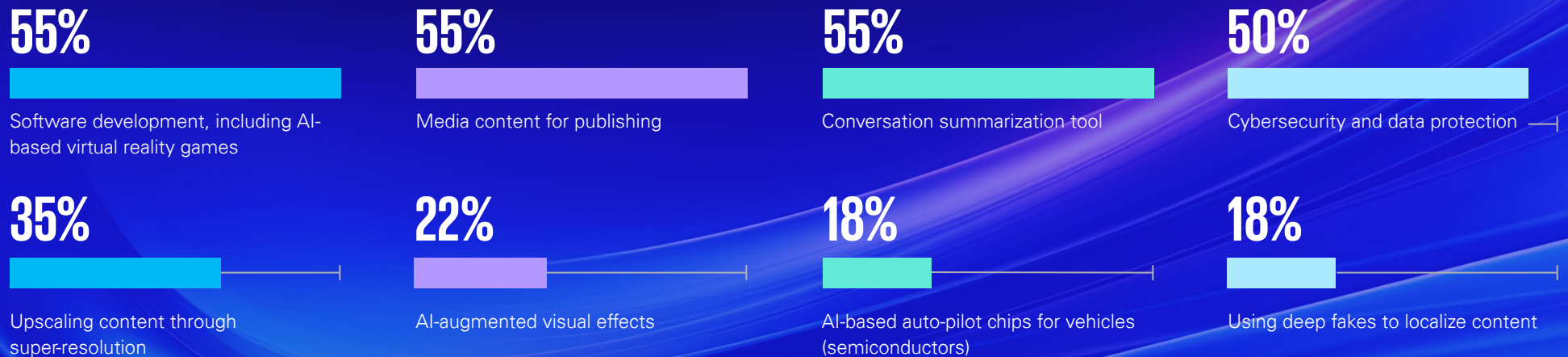
Note: Findings are based on KPMG surveys on generative AI from March and June 2023; the comparative March survey data points are based on 225 US respondents.

■ March survey ■ June survey

Use cases abound

TMT leaders say their companies are most likely to apply generative AI in four main areas: software development, including AI-based virtual reality games (55 percent), media content generation (55 percent), conversation summarization (55 percent), and cybersecurity and data protection (50 percent). What's more, a majority anticipate implementation in these areas within the next year (Exhibit 1):

Which of the following areas of generative AI have a likelihood of being applied within your company?



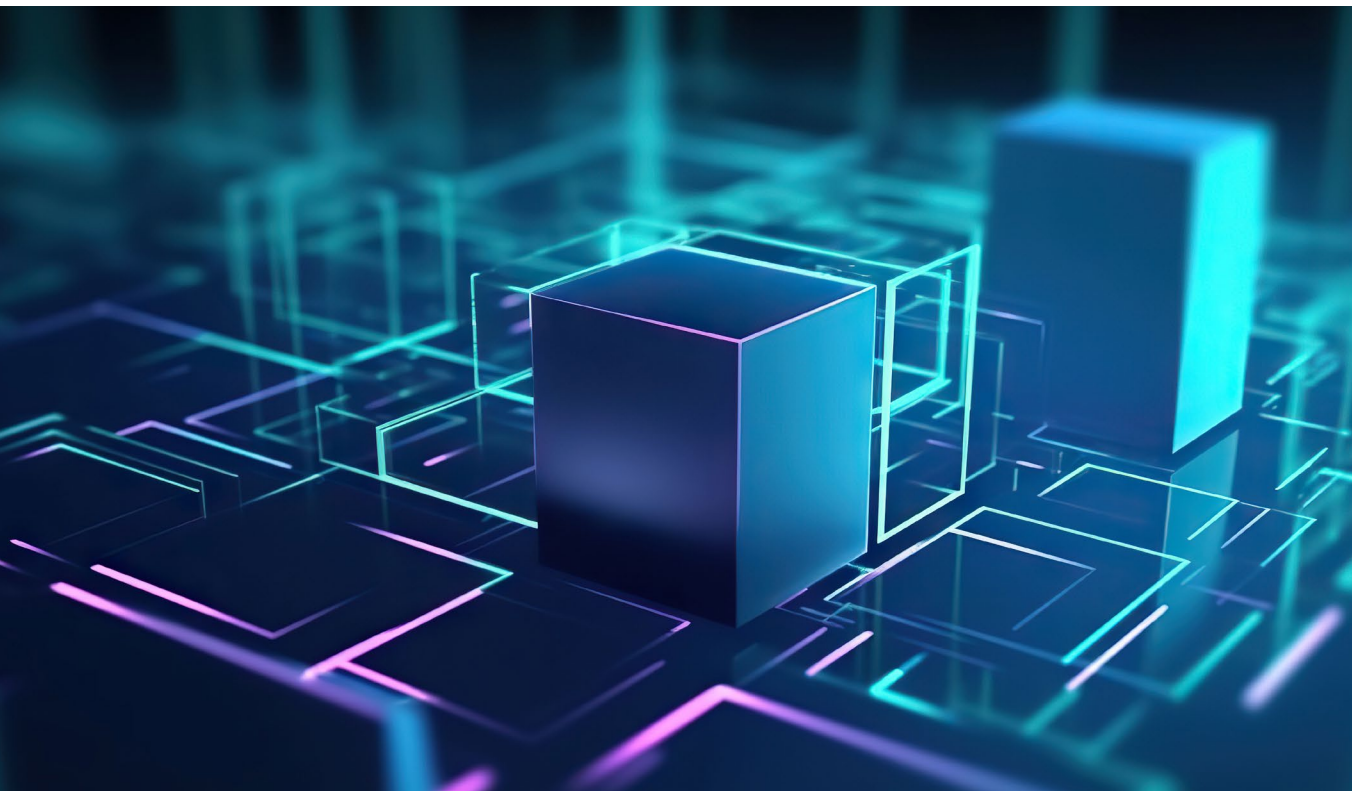
Source: KPMG Generative AI survey, March 2023

Farther out, they also see generative AI being used to improve their production capabilities. Seventy-six percent of TMT executives expect the technology to be used to optimize production schedules and identify inefficiencies in the production process, 69 percent foresee its use in inventory management,

51 percent expect it to be used in forecasting prices of raw materials, and 49 percent see it being used for generative design components. However, other than forecasting raw material prices, about half of TMT executives don't see these uses cases being applied until more than a year from now.

Use cases by subsector

While many generative AI applications may be similar for TMT companies, KPMG anticipates that use cases may differ across subsectors:



Technology

We see technology companies using generative AI both to improve operating efficiencies (affecting both cost and revenue) and to improve the attractiveness of products and services they offer. At a foundational level, they can use it for software development—generating bits of code, user interface designs, even entire software programs. All this is valuable for rapid prototyping, generating documentation, and automating repetitive coding tasks. Generative AI can also be used to design user interfaces, logos, website layouts, and product packaging. It can generate synthetic data to augment existing data sets or create new training data for machine learning algorithms. It can create virtual testing environments for software and hardware development. And it can aid in cybersecurity efforts by simulating potential attacks, identifying threats, and developing better defense mechanisms.

Media

Content creation use cases—including writing, music, and images/video—are promising applications for generative AI at media companies. We anticipate they will use generative AI to accelerate the creative process by drafting first iterations of television commercials, television episodes, or movie scenes, for example. During the production of movies or television shows, it can enhance content by generating suggestions for enhancing images, videos, or audio quality. And it can assist with automating video editing, audio transcription, and captioning processes. At news organizations, generative AI can help journalists with research, and make it easier to present data-driven stories by creating infographics and other visually appealing and interactive representations of data. However, we believe the technology isn't a replacement for all human activities but will accelerate and enhance them.



Telecom

Telecom companies can use generative AI to improve their networks by identifying potential bottlenecks, optimizing resource allocation, and predicting maintenance needs. They can generate personalized service recommendations for customers around things like data plans, subscription upgrades and value-added services. We also envision telecom companies using this new technology to improve their call center operations, both to boost customer satisfaction and reduce cost. Already, there are generative AI applications that can instantly translate conversations between customers and call center agents speaking different languages, or strip out the accents of call center agents to help customers better understand what they're saying.

TMT companies still face hurdles in adopting generative AI

TMT executives are more than twice as likely as others to say their company has a highly developed IT/digital infrastructure (37 percent, versus no more than 18 percent in any other sector), as measured by the level of data integration across their enterprise and their organization’s use of a modern cloud/hybrid cloud infrastructure.

TMT companies also tend to have more buy-in from—and direct participation by—their executive leadership teams around generative AI. Sixty-five percent of survey respondents in this sector say their executive leadership is involved in their organization’s generative AI efforts, versus 55 percent of all respondents. Their product development/R&D function also is more likely to be involved, 48 percent versus 36 percent. In fact, while IT/tech is the functional area most likely to be leading efforts to implement generative AI at all companies, it is more often the executive leadership team heading the effort at TMT companies (40 percent versus 24 percent).

TMT companies are more people-ready for generative AI, too, with 25 percent of executives in this sector highly agreeing their organization has the right people in place to integrate generative AI into their business, versus 15 percent at all companies.

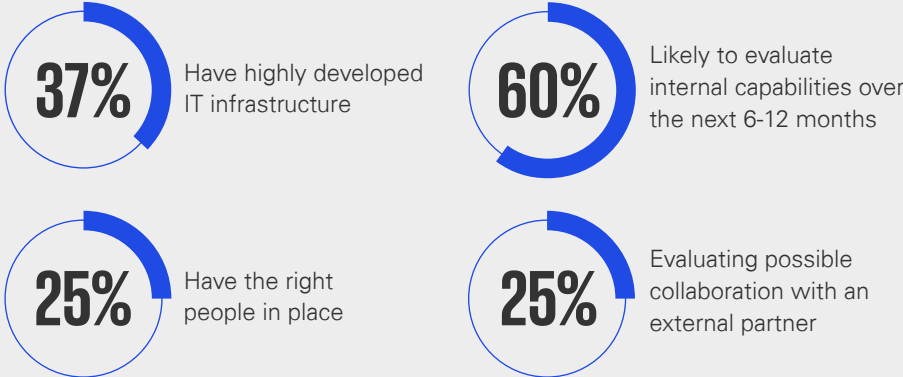
Still, TMT companies are taking a hard look at their capabilities as they seek to take advantage of all generative AI has to offer. Sixty percent of TMT executives say their organization is likely to be evaluating its internal capabilities over the next 6 to 12 months to enhance generative AI implementation, versus 51 percent of all companies.

In seeking to develop and implement generative AI, TMT companies are relatively open to outside help. Twenty-five percent are evaluating the

possibility of collaborating with an external partner, versus 26 percent of all companies. Fifteen percent are actively seeking to collaborate with an external partner, versus 20 percent of all, and 23 percent are considering hiring an external partner, versus 19 of all. Only 13 percent say they’re planning on building their generative AI capabilities entirely in-house.

TMT executives say their companies are most likely to already be engaging with an external partner, or are planning to do so, for help with model testing and validation (cited by 61 percent of TMT executives), integration with existing systems and infrastructure deployment (58 percent), and data acquisition and processing (55 percent).

How TMT executives see their readiness for generative AI



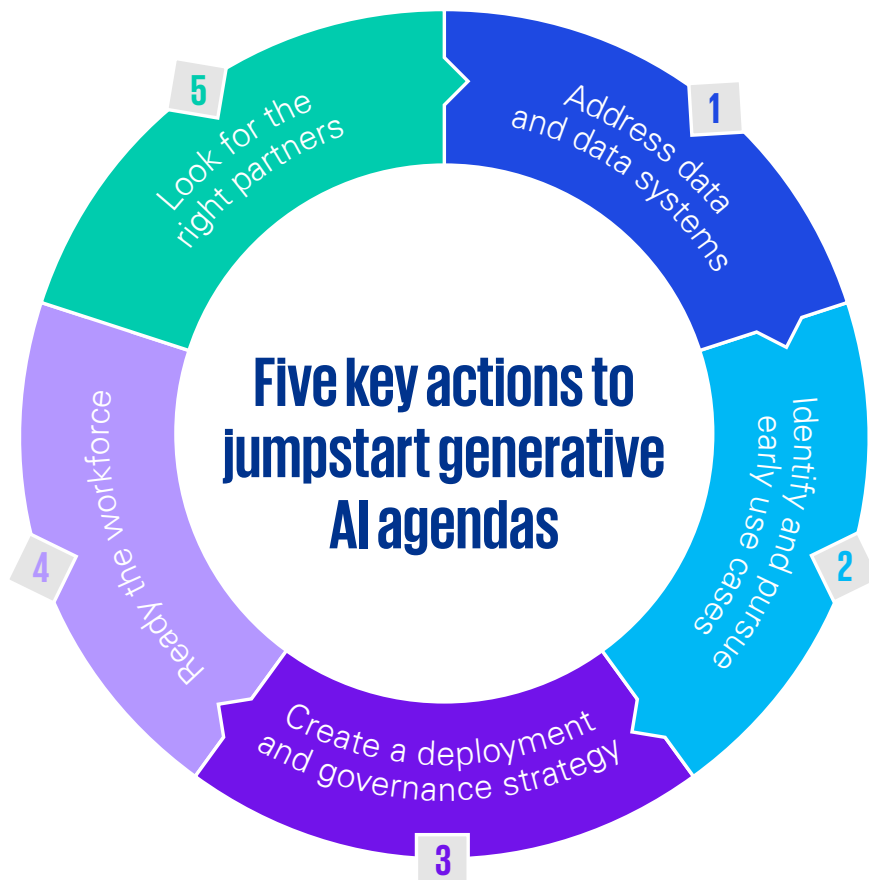
Understanding the generative AI arms race

One of the challenges for TMT companies—like companies in virtually every sector—will be how to reconcile the multitudes of generative AI engines soon to be used within the organization. Some functions will find that offerings from the big search and software companies provide the most relevant results, while others will want to select new start-up or open-source category champions for the degree of specialization they promise. For some, the selection was actually made years ago when they chose to deploy a particular enterprise package from their preferred software vendors. Each of these vendors either already has or will soon have its own brand of generative AI. Rather than attempting to select a single winning provider, TMT leaders need to consider how they will reconcile the outputs from “all of the above.” The generative AI ecosystem is evolving so fast that understanding how this will affect an organization’s integration of existing and future technologies, efficiently and responsibly, is the need of the hour. TMT companies will likely be at the forefront of this process.



What to do next

With so many potential use cases, we see a significant opportunity for fast-acting TMT companies to capture first-mover advantages with generative AI. KPMG has identified five key actions companies can begin taking right now to jumpstart their generative AI agendas:



1 Address data and data systems

Many of the most powerful generative AI business use cases will require a combination of data from open sources, third-party providers, and proprietary sources for augmenting and complementing pre-trained large language models. Accelerate efforts to ensure your data is clean, comprehensive, and accessible in a cloud environment, where it is often easier to introduce new capabilities such as generative AI. While doing so, make necessary investments to proactively address risks and security implications, including accuracy of outcomes, data protection, cyber risks, privacy, and loss of intellectual property.

2 Identify and pursue use cases

We encourage TMT companies to start exploring a portfolio of early use cases without delay, given a broad set of potential applications for generative AI with significant early-mover advantages. Leverage a structured and replicable proof-of-concept approach to identify use cases and launch pilots in 5-10 week sprints to securely demonstrate measurable productivity improvements. Start by targeting functions with the highest density of knowledge workers that perform a high share of replicable tasks with relatively modest need for proprietary data (e.g., in customer interactions, HR, software development, etc.). In parallel, gradually add efforts to embed generative-AI-enabled functionality into the core products and services sold to customers. Also, experiment with creating new offerings and services.

How KPMG can help

An early and enthusiastic advocate for the responsible use of the power of artificial intelligence, KPMG is uniquely positioned to help your organization leverage generative AI. By combining our technical expertise in AI with functional and industry depth in key areas of use, we can guide your organization through strategy, use case development, vendor selection, and pilot implementations. We have the ability to drive change and can provide ongoing support to help you scale and optimize your investment. We understand both the promise of generative AI and the process, organizational, and cultural changes that will be required to realize its full potential.

KPMG also recognizes that users of generative AI have a responsibility to learn about the technology's risks and how to control those risks to prevent harm to customers, businesses, and society. Those risks will grow and evolve as AI technology advances and becomes more pervasive, and as public pressure from regulators increases. The KPMG responsible AI offering features frameworks, controls, processes, and tools that can help ensure AI systems are designed and deployed in a trustworthy and ethical manner, which in turn can help manufacturers accelerate time to value when using those systems.

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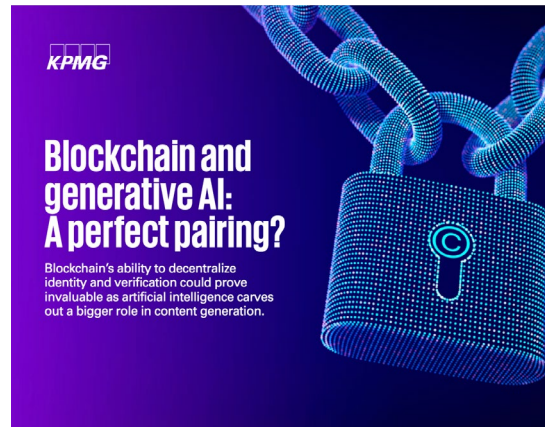
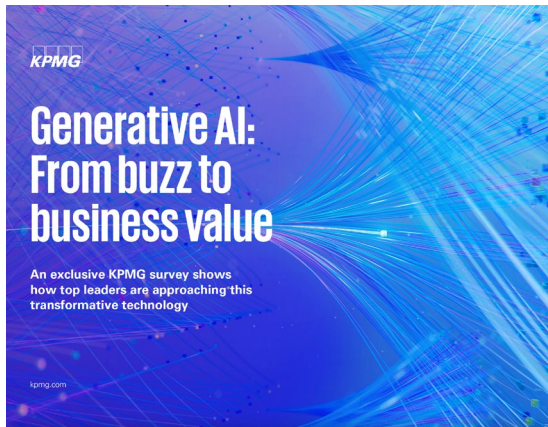
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