Enterprise Strategy Group™ by TechTarget

RESEARCH REPORT

Beyond the GenAI Hype: Real-world Investments, Use Cases, and Concerns

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Enterprise Strategy Group

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TechTarget's Enterprise Strategy Group (ESG) conducted an in-depth survey of 670 IT professionals and business decision makers in North America, EMEA, APAC, and LATAM involved with generative AI (GenAI) initiatives in their organization. Based on the data collected as part of this project, the report illustrates:

- **GenAI is barreling forward with alarming momentum.** GenAI has dominated both headlines and decision-maker mindshare in 2023 behind a groundswell of potential and concern nearly unprecedented in enterprise technology circles. In turn, organizations of all sizes are scrambling to assemble strategies, teams, and technologies to assess and potentially deploy GenAI. Even though mainstream GenAI was just brought to market in 2022, 58% of organizations are already using the technology, actively experimenting with it, or planning to adopt it in the next one to two years. This surge is not coming from a "flavor of the month" mentality, but rather from clear and aggressive expectations that GenAI will substantially transform business and IT operations. Nearly half of organizations already have budget allocated or plan to allocate it for GenAI initiatives.
- **GenAI initiatives will soon be widespread within all areas of organizations.** Within a year, GenAI will be pervasive in organizations, with plans emerging across areas such as customer service, research, marketing, software development, product development, and IT operations. Some organizations might be overestimating the near-term potential of GenAI, particularly when weighed against necessary controls and policies, but it is important to remember that many organizations had AI initiatives underway before the mainstreaming of GenAI. In fact, an impressive 30% of organizations said they will utilize an open source, large language model (LLM) and develop a GenAI solution in house, suggesting AI and analytics skills are in place, or soon will be, to support GenAI.
- **GenAI's expected benefits read like a "laundry list" of digital transformation.** Clearly, organizations will increasingly turn to GenAI to accelerate both business and IT operations, helping to improve automation, data analytics, employee productivity, customer experience, content creation, and other crucial everyday areas and processes. Although many organizations will likely consider multiple applications for GenAI, they are most commonly prioritizing data insights, chatbots, employee productivity, and content creation. Considering organizations are veering quickly toward GenAI and all of its expected benefits, it is imperative for organizations to quickly, but carefully, build their strategies. After all, 78% of these decision makers are already using GenAI for personal use, yet only 36% said their organizations have policies that prevent or limit the use of this highly disruptive technology.
- **Challenges and threats will lurk in every corner.** GenAI has already developed a reputation for generating unreliable or untrustworthy data (called "hallucinations" when a response is inaccurate, fictitious, or otherwise flawed), a challenge that's multiplied many times over when used in any business or IT scenario. Organizations are scrambling to ensure internal and external trust in GenAI implementations remains high. Organizations appear to recognize the need for education among their employees, as 39% said expertise or skills is the biggest challenge they face with GenAI, followed by ethical or legal considerations (32%), and data quality (31%). Although decision makers will turn to an extensive selection of information sources to learn more about GenAI, they will most commonly lean on GenAI tools themselves to support their assessments.
- **Customers will flock to GenAI-equipped products, but with a limited wallet for now.** More than half of organizations (51%) said they are more likely to consider a vendor that incorporates GenAI capabilities into a product or service compared with vendors offering comparable products without GenAI. However, this doesn't mean they're willing to pay much more for these products, as only 10% of organizations are currently willing to pay more than a 10% premium on GenAI-equipped products or services (compared with non-GenAI products or services). Nonetheless, this is likely due to a short-term wait-and-see approach, as 45% of organizations don't know if they would pay premium, or if they would, how large it would be. Vendors and services providers will be tasked to show the value and safety of GenAI offerings in the immediate future.

Introduction

Research Objectives

While AI in general was already assimilating into the everyday business and IT lexicon thanks to ongoing AI and analytics strategies and initiatives, GenAI recently stormed the market and mindshare of decision makers across industries and major geographic markets. Business leaders see a massive opportunity to positively impact operations and customer strategies with GenAI, but its adoption and use across all business units carry a fair share of trepidation.

Most organizations are aware of GenAI, and a rising percentage are currently formulating strategies to both harness the technology's benefits and control its use to prevent data quality issues and information leaks. To assess the state of GenAI strategies and plans, TechTarget's Enterprise Strategy Group surveyed 670 IT professionals and business decision makers in North America (65%), EMEA (18%), APAC (16%), and LATAM (2%) involved with generative AI initiatives in their organization. This study sought to answer the following questions:

- What is the status of GenAI initiatives within organizations?
- How are organizations using, or planning use, large language models (LLMs) to support GenAI initiatives?
- Are organizations allocating, or planning to allocate, budget to support GenAI initiatives? If so, what is the percentage of IT budgets allocated to GenAI?
- In which lines of business are organizations currently applying GenAI? Moving forward, which of these areas will benefit most from the use of GenAI?
- Which teams or stakeholders actively contribute to shaping GenAI initiatives in organizations?
- What technology investments are needed to support GenAI initiatives?
- What do organizations identify as the primary benefits of using GenAI in their environments?
- What are the most prioritized use cases for GenAI, particularly in environments where the technology is applied across multiple areas?
- What are the biggest challenges organizations face in GenAI implementations?
- In which areas do organizations feel they need to invest (time and/or money) to support the use of GenAI?
- What type of third parties do organizations currently, or plan to, work with to support GenAI initiatives?
- Are organizations more or less likely to consider vendors that incorporate GenAI capabilities as part of their products or services?
- How much more, if at all, are organizations willing to pay for a product or service that uses GenAI versus a comparable product or service that does not use GenAI?
- What types of information or media would help organizations assess GenAI?
- For which application development use cases are organizations using, or planning to use, GenAI? What about use cases for security and customer experience (CX)? Where will investments be made?
- How do, or will, organizations ensure the security and privacy of data used in GenAI models?
- For which security use cases are organizations using, or planning to use, GenAI?
- Which areas of the analytics lifecycle will benefit most from the use of GenAI?

Survey participants represented a wide range of industries, including financial, manufacturing, retail/wholesale, and healthcare, among others. For more details, please see the *Research Methodology* and *Respondent Demographics* sections of this report.

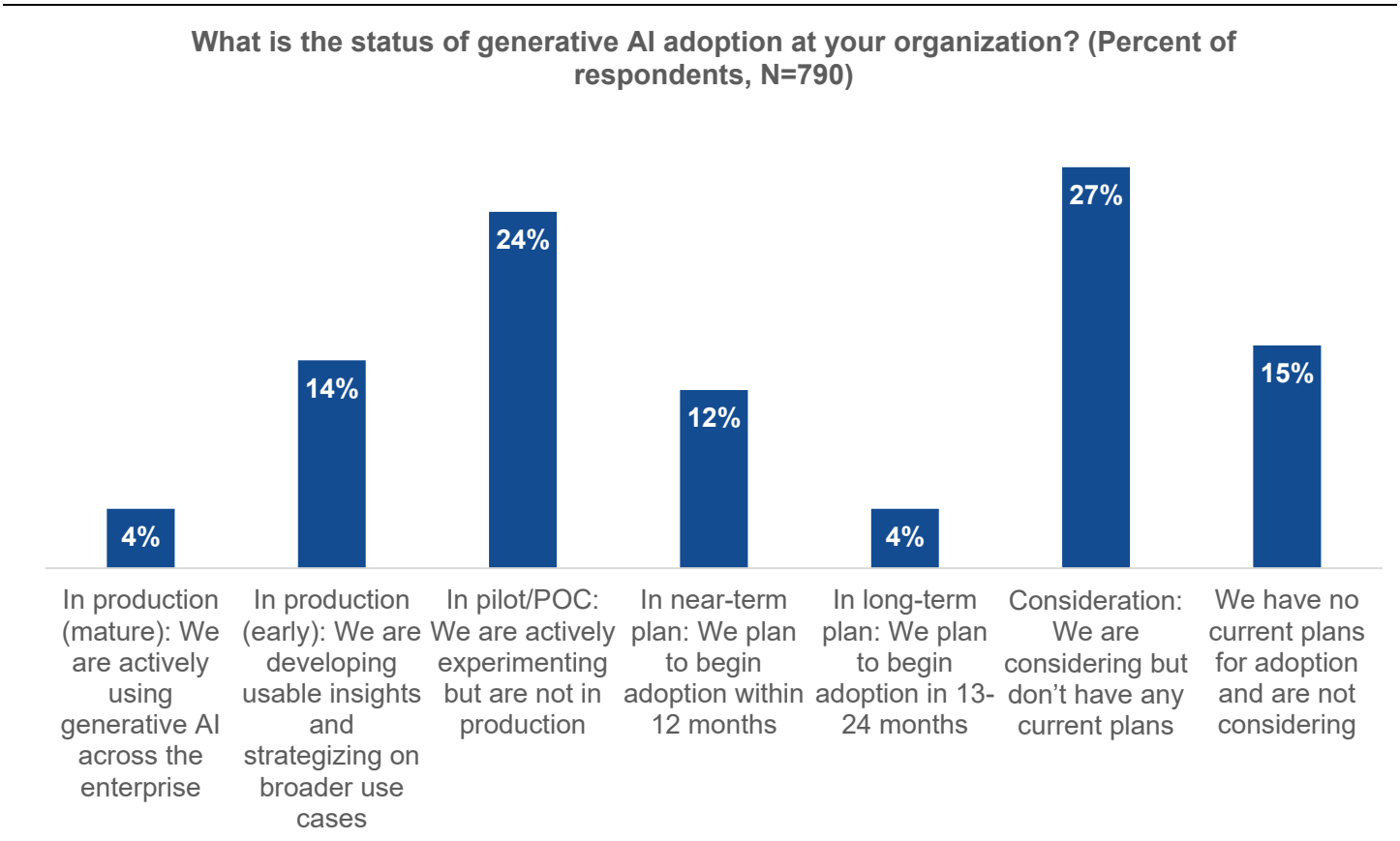
Research Findings

GenAI Adoption Is Nascent But Will Gain Extensive Traction in the Next Year

Although conversational AI was introduced decades ago with chatbots, mainstream awareness and adoption of similar technologies did not occur until recently, particularly with OpenAI's release of the ChatGPT GenAI service in November 2022. In turn, most organizations are in the early stages of developing GenAI strategies, are experimenting with the technology, or have no plans at all to use it. However, considering that 54% of organizations have GenAI in their plans or even in pilots or early production, broader adoption is imminent (see Figure 1).

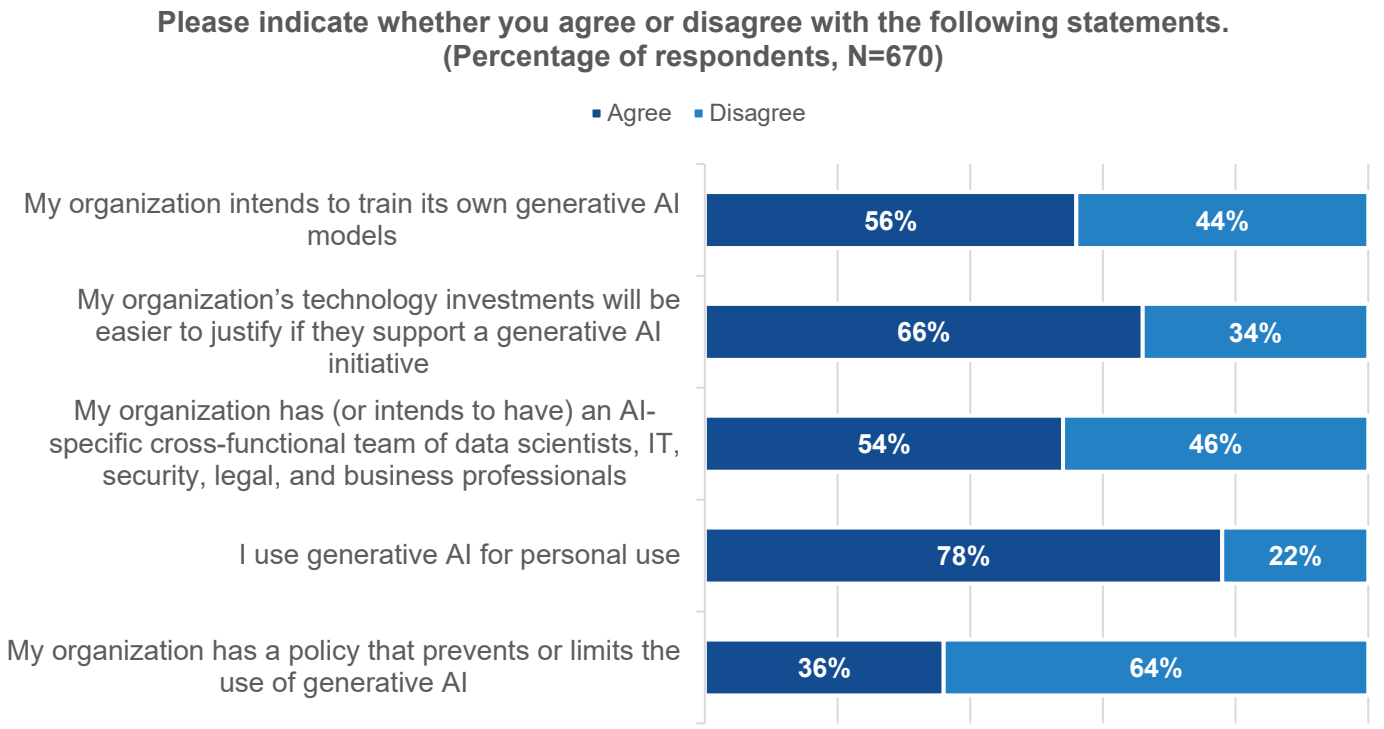
A deeper inspection of the activity behind GenAI reveals an emerging market in flux. Two-thirds of organizations agree that their technology investments will be easier to justify if they support a GenAI initiative, suggesting that the overall sentiment around GenAI is positive (see Figure 2). Meanwhile 56% of organizations plan to train their own GenAI models, and 54% have, or intend to have, an AI-specific cross-functional team of data scientists and IT, security, legal, and business stakeholders. While over three-quarters (78%) of respondents said they use GenAI for personal use, 36% indicate that their organization has a policy that actively prevents or limits the use of GenAI for business purposes. While the personal use of GenAI will probably remain high, business use frequency will likely change in the near future as organizations further develop their GenAI strategies and institute limitations to prevent data loss, security breaches, or other threats.

Figure 1. GenAI Adoption Is Nascent But Rapid Expansion Looms



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 2. Personal GenAI Use Is Common as Organizations Build Business Cases

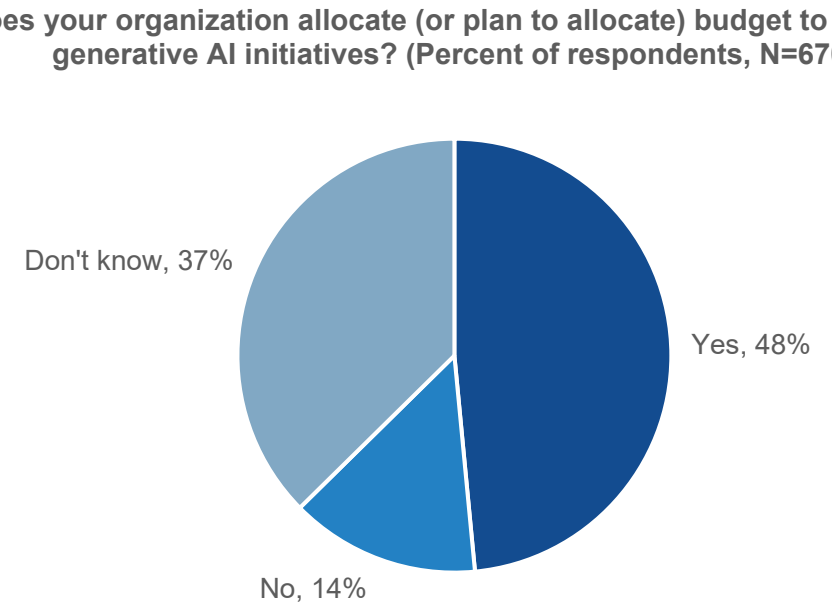


Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Among organizations that are currently using GenAI or planning deployments, almost half (48%) either allocate or plan to allocate budget to GenAI initiatives, while only 14% do not allocate budget or plan to allocate (see Figure 3). Meanwhile, 37% don't know about current or planned allocations, again reflecting the sudden emergence of GenAI on organizations' radars, leaving many potential stakeholders scrambling to determine the value and challenges of GenAI deployments in their environments.

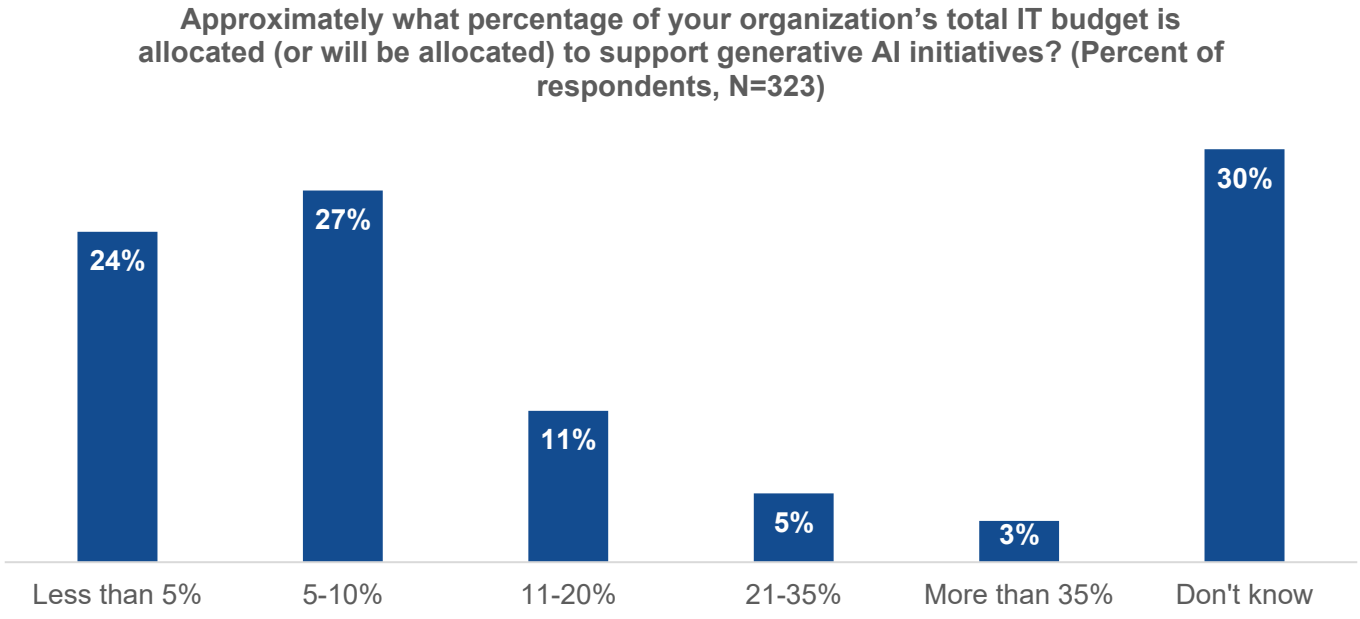
The extent of budget allocations will vary widely depending on numerous factors, including use cases, industry, C-level confidence, and others, but 51% of organizations allocating, or planning to allocate, budget earmark just up to 10% of their IT budget to support GenAI initiatives (see Figure 4). While this represents the IT budget allocation, broad budget allocation is happening across all corners of the business, and in many cases business stakeholders are not keeping IT abreast of where those technology investments are happening. Organizations not planning extensive investments in the technology are likely still formulating their strategies. Again, nearly a third (30%) don't know what they allocate or will allocate moving ahead. This presents a near-term opportunity for vendors selling products or services with integrated GenAI capabilities to demonstrate the unique value of these solutions to both business and IT stakeholders.

Figure 3. Nearly Half of Organizations Have Budget Allocated to GenAI or Plan to



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 4. Budget Allocations Limited as Organizations Continue GenAI Assessments

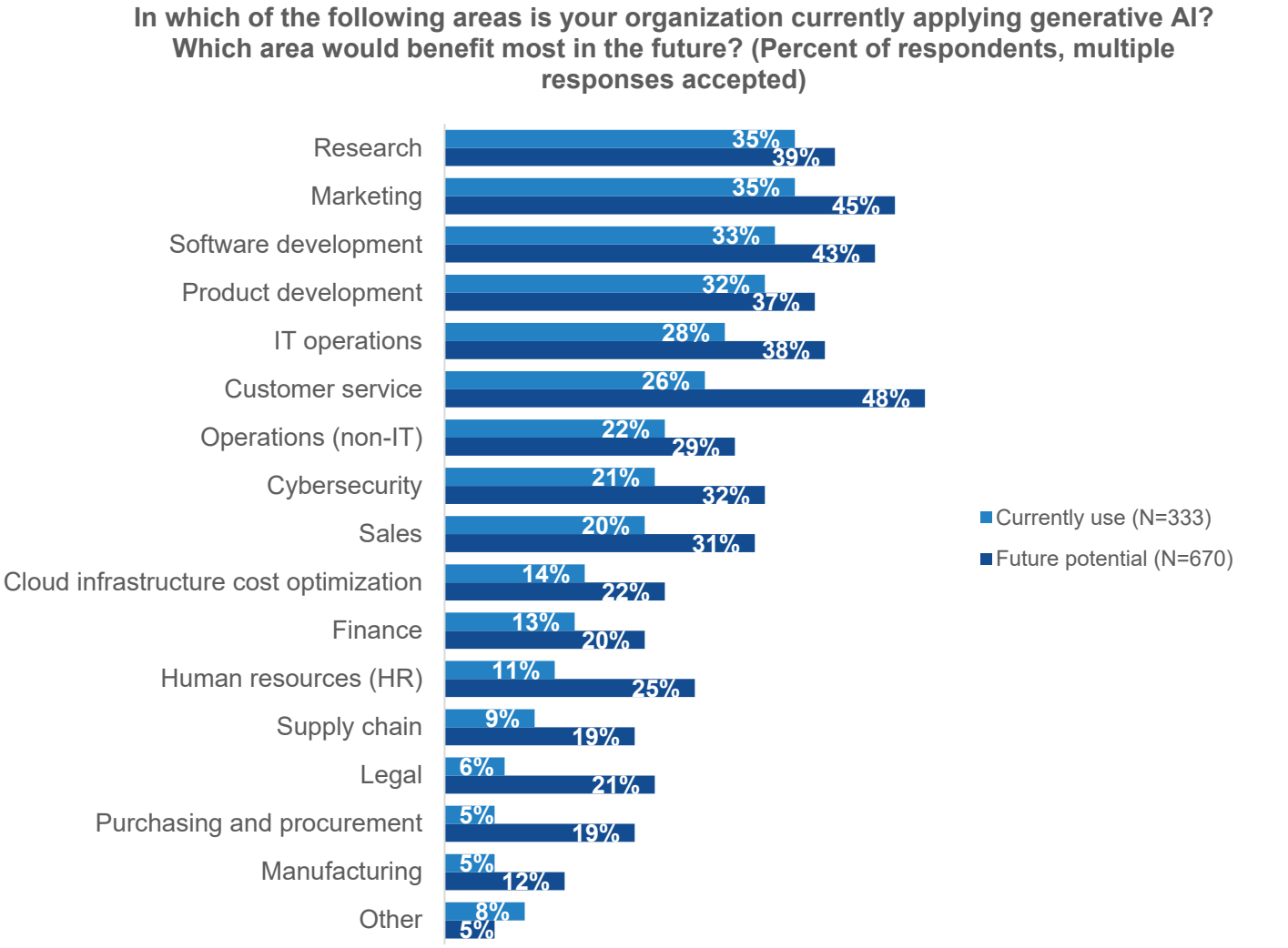


Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Planned Generative AI Use Cases Will Impact Nearly Every Corner of Organizations

Organizations currently using GenAI are applying the technology across a wide range of areas, led by research (35% of organizations), marketing (35%), software development (33%), and product development (32%) (see Figure 5). When asked what areas would benefit most in the future from GenAI, nearly half (48%) pointed to customer service, followed by marketing (45%), and software development (43%). Although prioritization is likely to morph wildly over the coming years as the technology matures and organizations develop a better understanding of GenAI's strategic benefits, these areas will serve as valuable test beds in the near future.

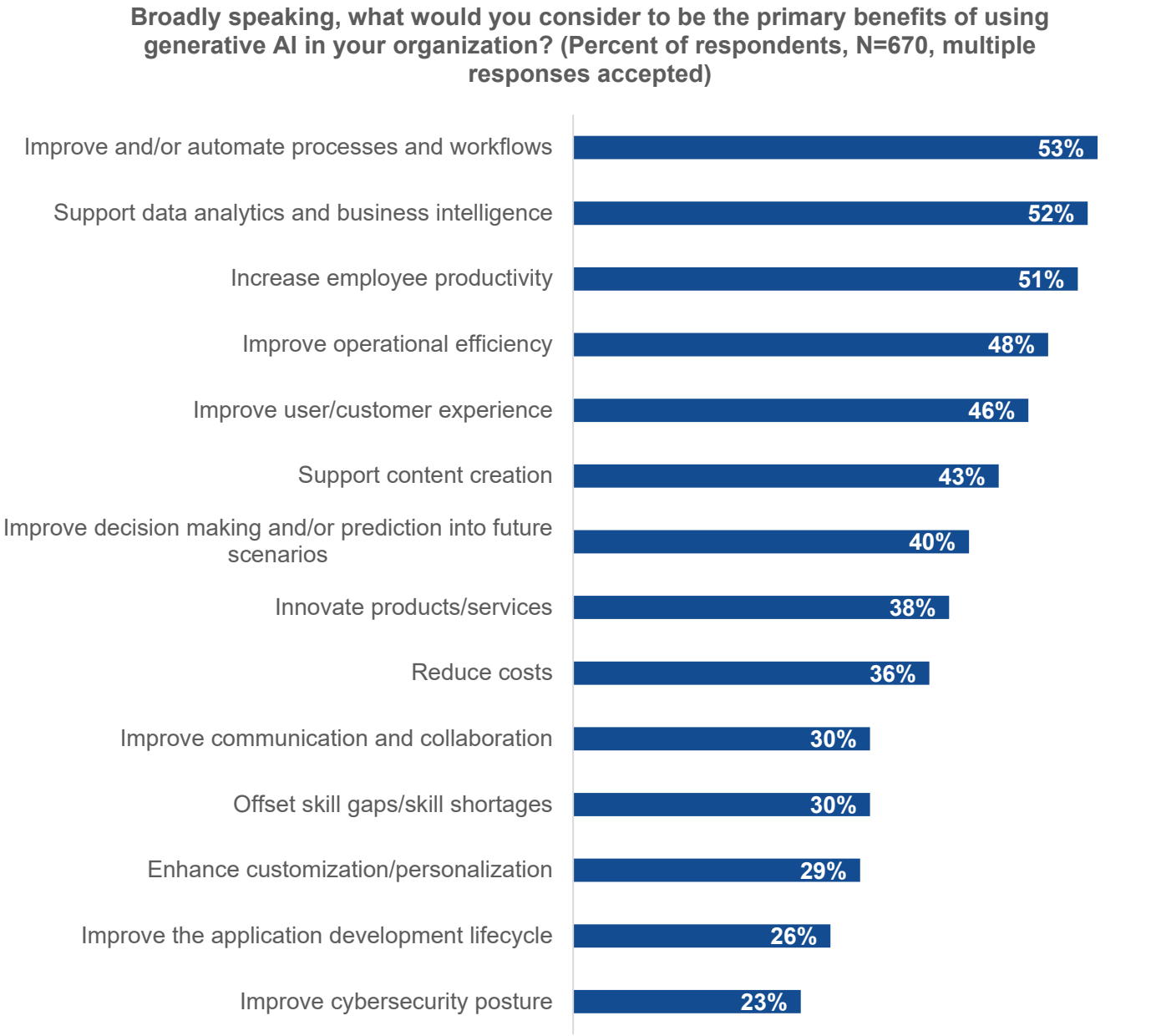
Figure 5. GenAI Set to Deliver Benefits Across a Wide Range of Business and IT Areas



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

From a broad perspective, GenAI appears set to serve as a wide-ranging business and IT supercharger. When asked what they thought would be the primary benefits of using GenAI in their organizations, over half (53%) of respondents said GenAI would be used to improve and/or automate processes and workflows, 52% said it would support data analytics and business intelligence, and 51% said it would increase employee productivity (see Figure 6). The depth of responses indicates that organizations are well aware of GenAI's potential to transform IT and business operations.

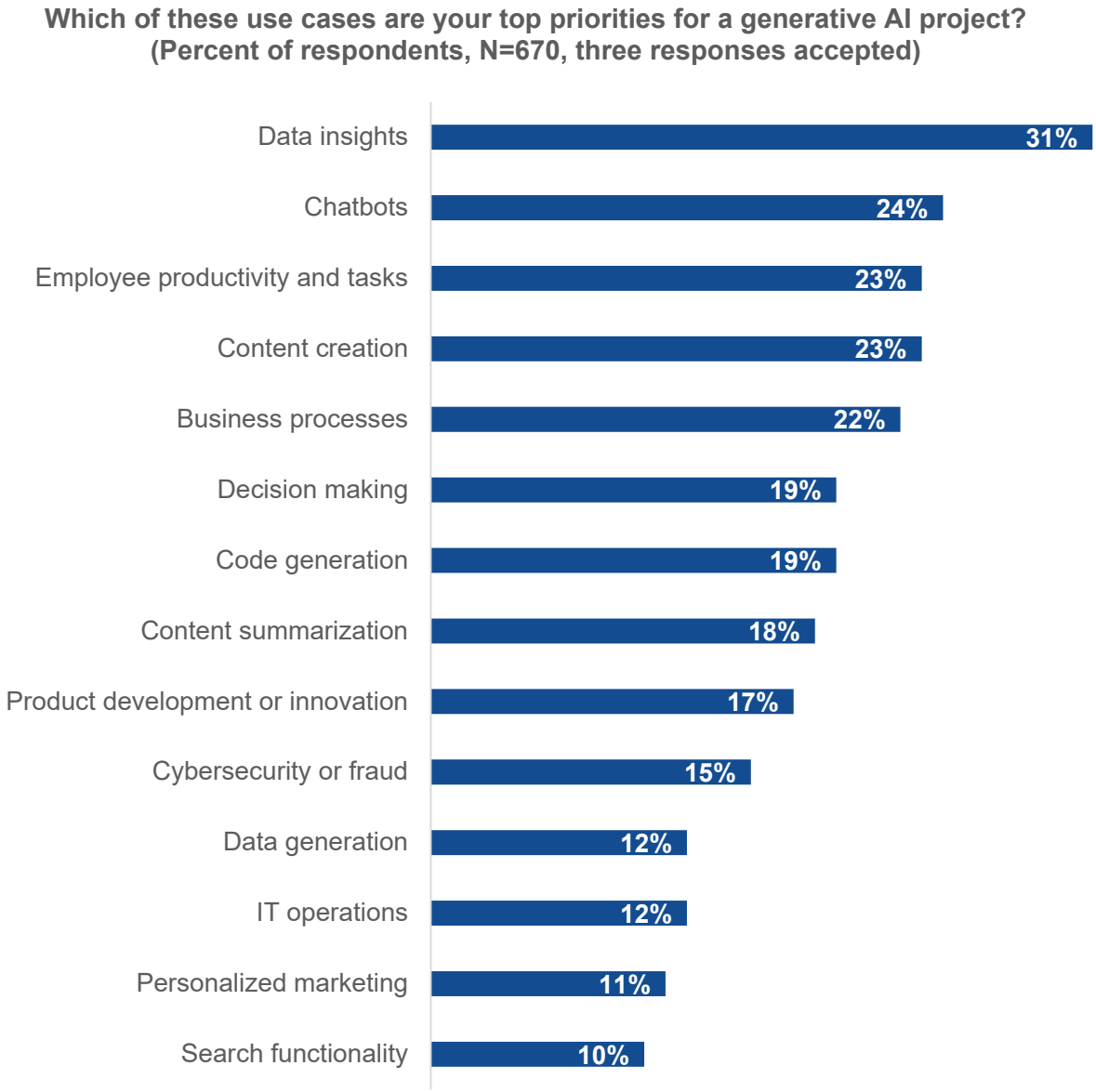
Figure 6. Organizations Look to GenAI as a Business and IT Supercharger



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

GenAI has the potential to be highly pervasive across the ecosystem of any organization, with multiple use cases in place within every environment. In these early days, organizations are most commonly prioritizing data insights (31% of organizations), followed by chatbots (24%), employee productivity and tasks (23%), and content creation (23%) (see Figure 7). Obtaining timely, accurate data insights has long been a challenge for many organizations, which places GenAI in a highly compelling position. If the technology can improve data insights, the floodgates could open wide for a throng of additional use cases within organizations.

Figure 7. Data Insights Lead Use Case Prioritization



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Despite the widespread enthusiasm for GenAI across organizations of all sizes and industries, organizations are keeping a wary eye trained on the potential downsides of the technology. Whether already using GenAI or developing plans for integration, 39% of organizations indicate challenges with employee expertise or skills, 32% are concerned about ethical or legal considerations, and 31% identified data quality as an issue (see Figure 8).

Although many or most of these are valid considerations, GenAI continues to face a mountain of concern and challenges, with ensuring trust underpinning many of them. As vendors prioritize simplicity and provide an on-ramp for customers to rapidly adopt GenAI solutions, minimizing risk is becoming paramount for early adopters. Areas such as ethics, fairness, privacy, security, transparency, accountability, governance, and compliance continue to force organizational tradeoffs and introduce roadblocks that delay time to value.

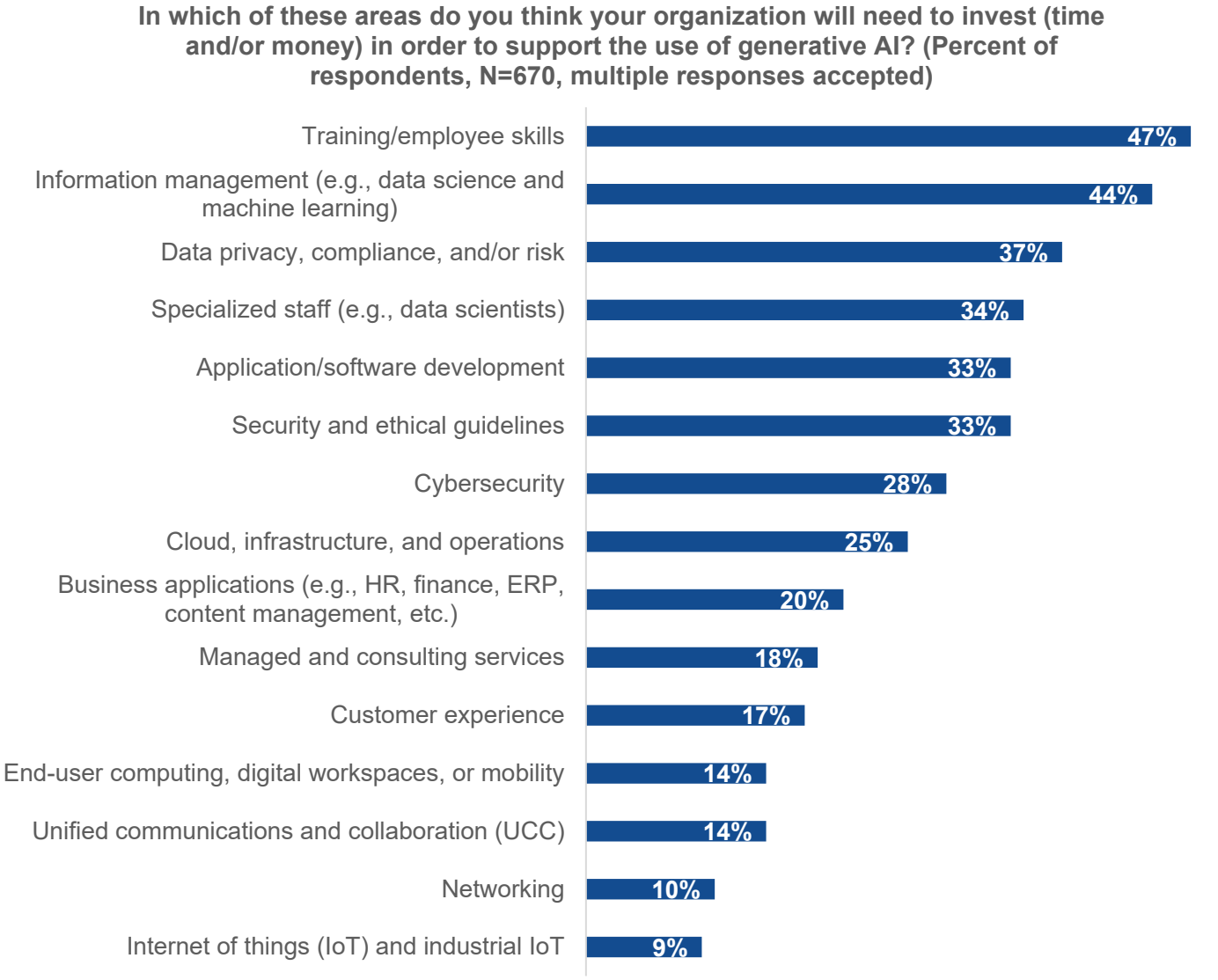
Figure 8. Skills Gaps Emerge as the Biggest Challenge of GenAI Implementations

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Accordingly, organizations are most commonly expecting to invest time and/or money in training and employee skills (47% of respondents) to bring their teams up to speed with GenAI (see Figure 9). When examining the other areas ripe for investment to support the use of GenAI, it becomes evident that GenAI could accelerate broader data-related strategies that possibly were slated for longer-term deployment.

For example, 44% of organizations said they expect to invest in information management areas such as data science and machine learning, 37% expect to invest in data privacy, compliance, and risk, and even 34% point to investment in specialized staff such as data scientists. The larger market impact here cannot be underestimated, as GenAI will likely fuel growth in adjacent markets including data architecture, integration, analytics, governance, security, and warehousing.

Figure 9. Investments Needed to Boost Skills and Information Management



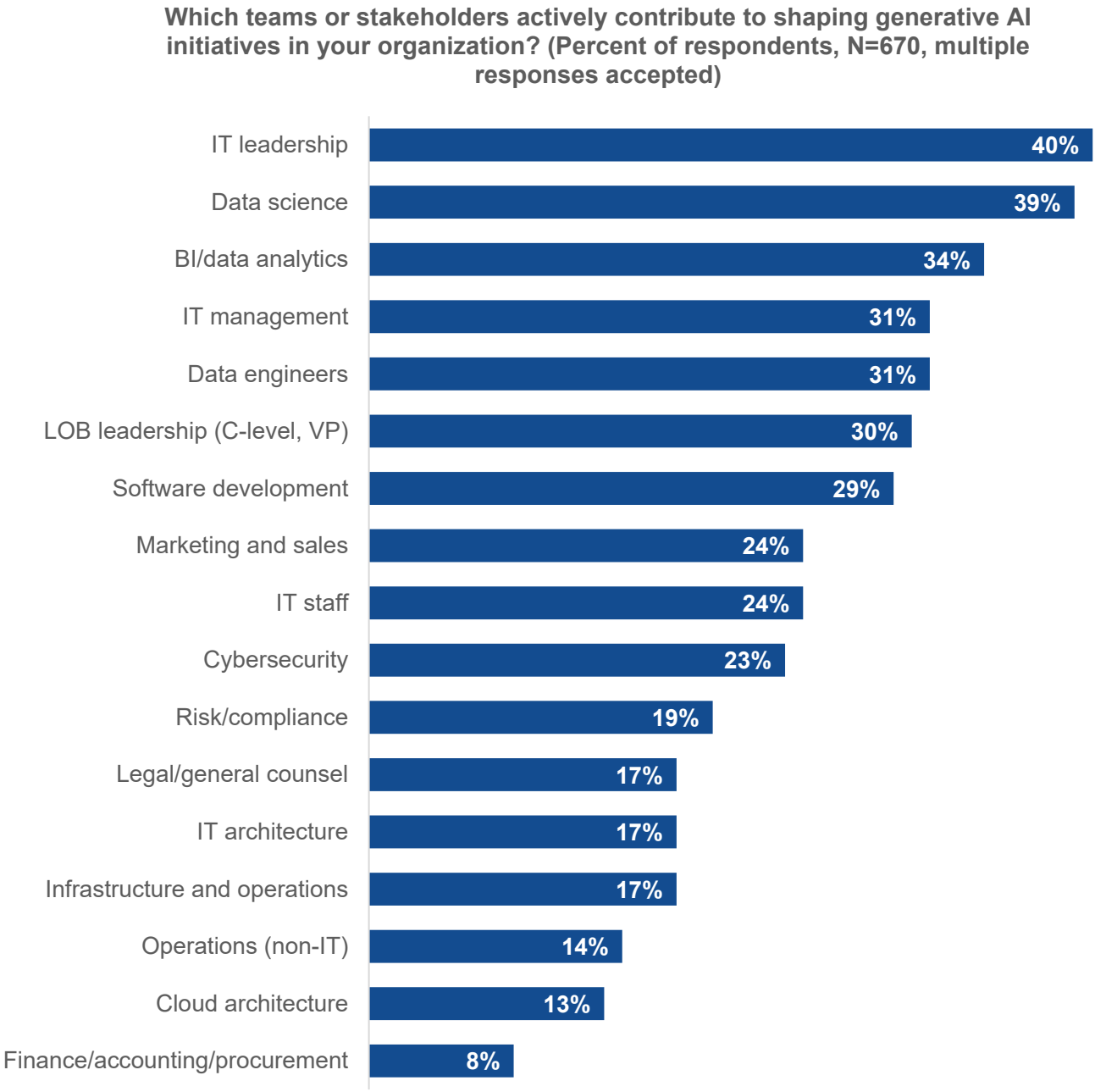
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

GenAI Stakeholders Emerge Across All Organizational Departments

To assess GenAI's potential for disruption across the average organization, look no further than the roster of contributing teams and stakeholders identified by organizations. All walks of IT and business actively contribute to shaping GenAI initiatives, including IT leadership (40% of respondents), data science (39%), and business intelligence (BI) and data analytics (34%) (see Figure 10). The list goes on, showing no dominance by IT, data, development, or business stakeholders. This paints a picture for vendors that is both exhilarating and troublesome: While it represents an enormous collection of inroads to potential revenue, it also means vendors will need well-developed, multi-pronged strategies for customer engagement inclusive of a dizzying array of stakeholders.

This also serves as a reminder that GenAI initiatives will not fall exclusively in the domain of IT. In fact, more GenAI initiatives will likely be created and driven by business decision makers looking to optimize overall operations in specific LOBs or even organization wide. IT will still be involved in these initiatives, but the strategy design and implementation will lie with those business stakeholders.

Figure 10. IT Leadership and Data Science Teams Pave the Way for GenAI Initiatives



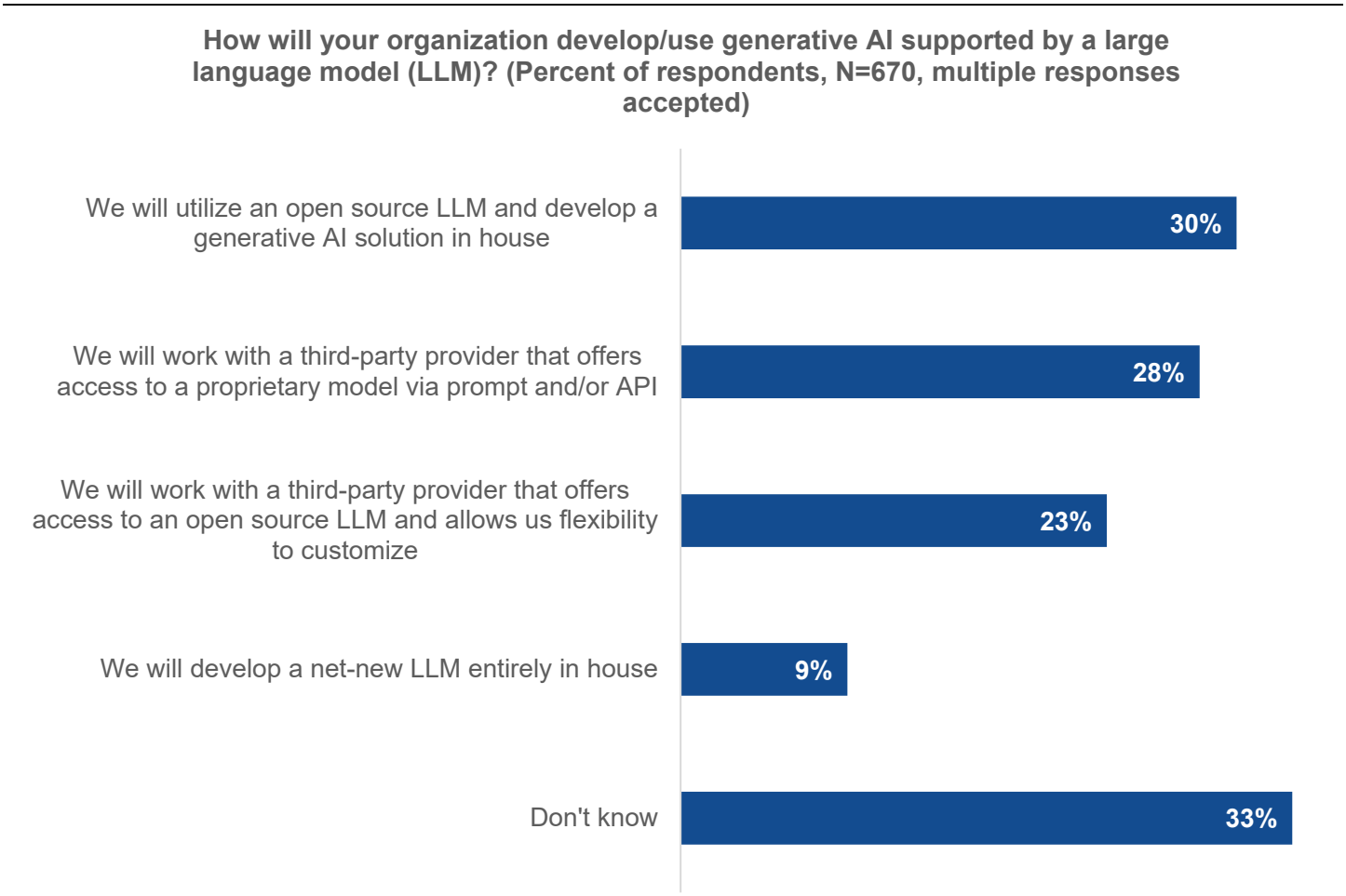
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

GenAI Shows Strong Opportunity for Third-party Vendors and Service Providers, But the Market Will Not Be Their Exclusive Territory

Although there will be plenty of opportunity for third-party vendors and service providers in the GenAI market, it is evident that many organizations will tap their own internal resources to support initiatives, particularly when examining plans for large language models (LLMs) to support the development and/or use of GenAI. Nearly a third (30%) of organizations said they will utilize an open source LLM and develop their own GenAI solution in house,

indicating that a sizeable percentage of organizations are already well-equipped with AI skills and personnel (and if they are not now, they will be) (see Figure 11). With that said, help is likely still required, so expect an increase in professional service offerings as everyone from management consultancies to technology providers can provide technical guidance and expertise across the GenAI lifecycle, including goals and objectives, use case identification, POCs, implementation, and ongoing management and maintenance. More than half (51%) of organizations plan to work with a third-party provider for LLMs, either through a proprietary model via prompt and/or API, or to access an open source LLM that allows customization. Meanwhile 33% of organizations are undecided on their LLM plans, again reinforcing the need for further education and guidance in this market.

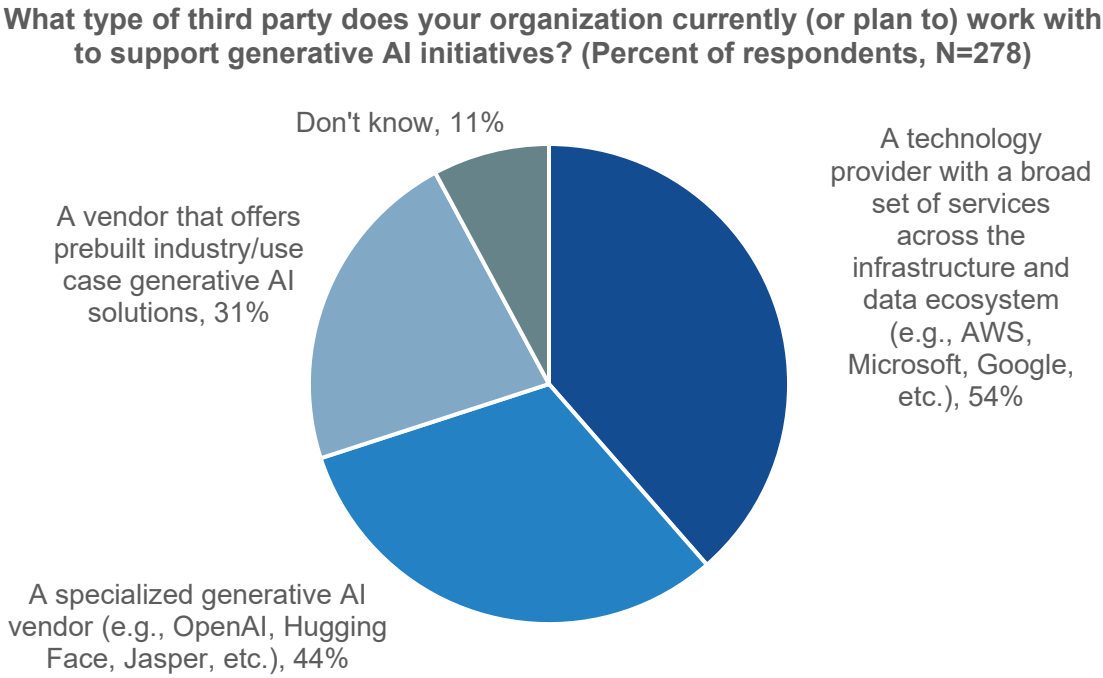
Figure 11. Plans Underway for Large Language Model Development



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Among organizations that currently work, or plan to work, with a third party to support their GenAI initiatives, 54% said they prefer to work with a holistic provider that offers broad services across infrastructure and data ecosystems (see Figure 12). This bodes well for both comprehensive hyperscalers and incumbent data center infrastructure providers. Meanwhile, 44% prefer to work with a specialized generative AI vendor, and 31% prefer a vendor that offers prebuilt AI solutions designed for a particular use case or industry. The wide distribution of LLM approaches and use cases leaves plenty of space for all of these players as the GenAI market rapidly expands.

Figure 12. Holistic Providers Are in the Third-party Pole Position



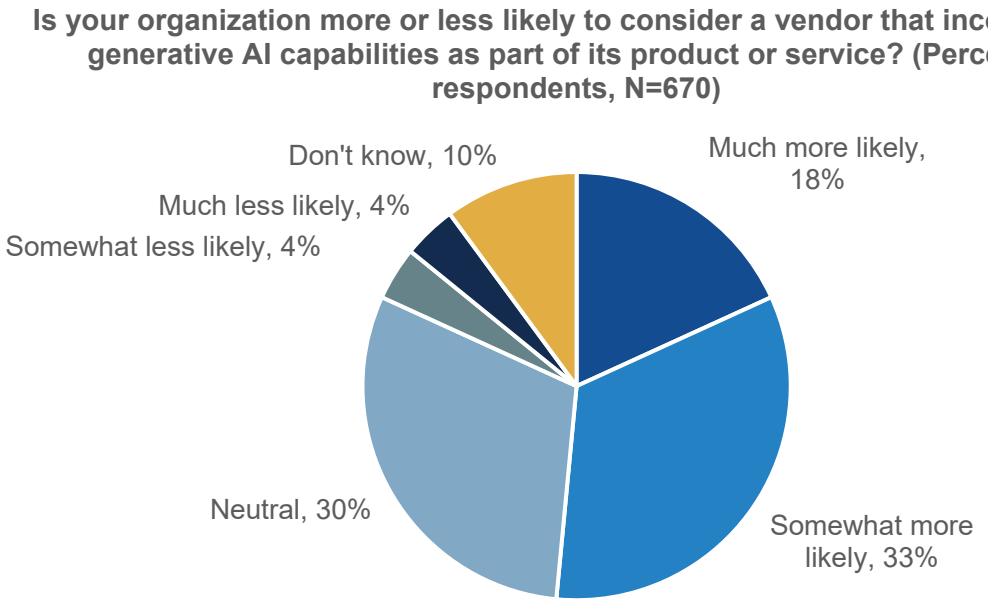
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

GenAI Integration Will Spark Sales, But to What Extent?

The inclusion of GenAI capabilities in products and services is likely to boost sales moving forward. More than half (51%) of organizations said they are more likely to consider a vendor that incorporates GenAI capabilities into its product or service (see Figure 13). Nearly a third (30%) of the remaining organizations are neutral, suggesting they are taking a wait-and-see approach with the technology, similar to the 10% that said they don't know. Only 8% said they are less likely to consider solutions from these vendors, providing ample evidence that any downsides of GenAI are highly unlikely to negatively influence sales.

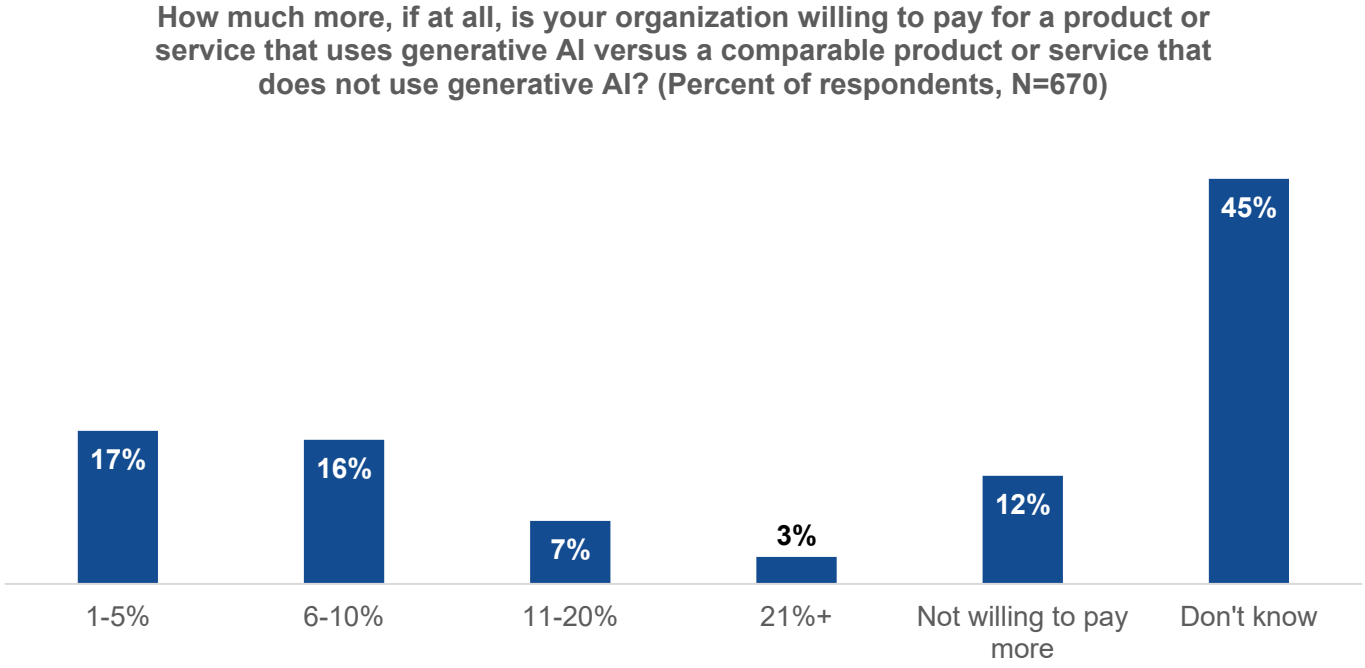
However, the likelihood of organizations favoring a vendor or service provider that sells GenAI-equipped solutions does not mean customers are willing to pay big premiums for those products. For example, only 10% of organizations said they would be willing to pay a premium of over 10% for such a product or service. Nonetheless, this is still a young market in massive flux, and many of the 45% of organizations that said they don't know if they would pay a premium could easily be swayed to do so in the near future as the technologies mature and results of use cases emerge.

Figure 13. Need Sales? Integrate GenAI into Products and Services



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 14. Slap Big Premiums on GenAI-equipped Solutions? Not So Fast



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

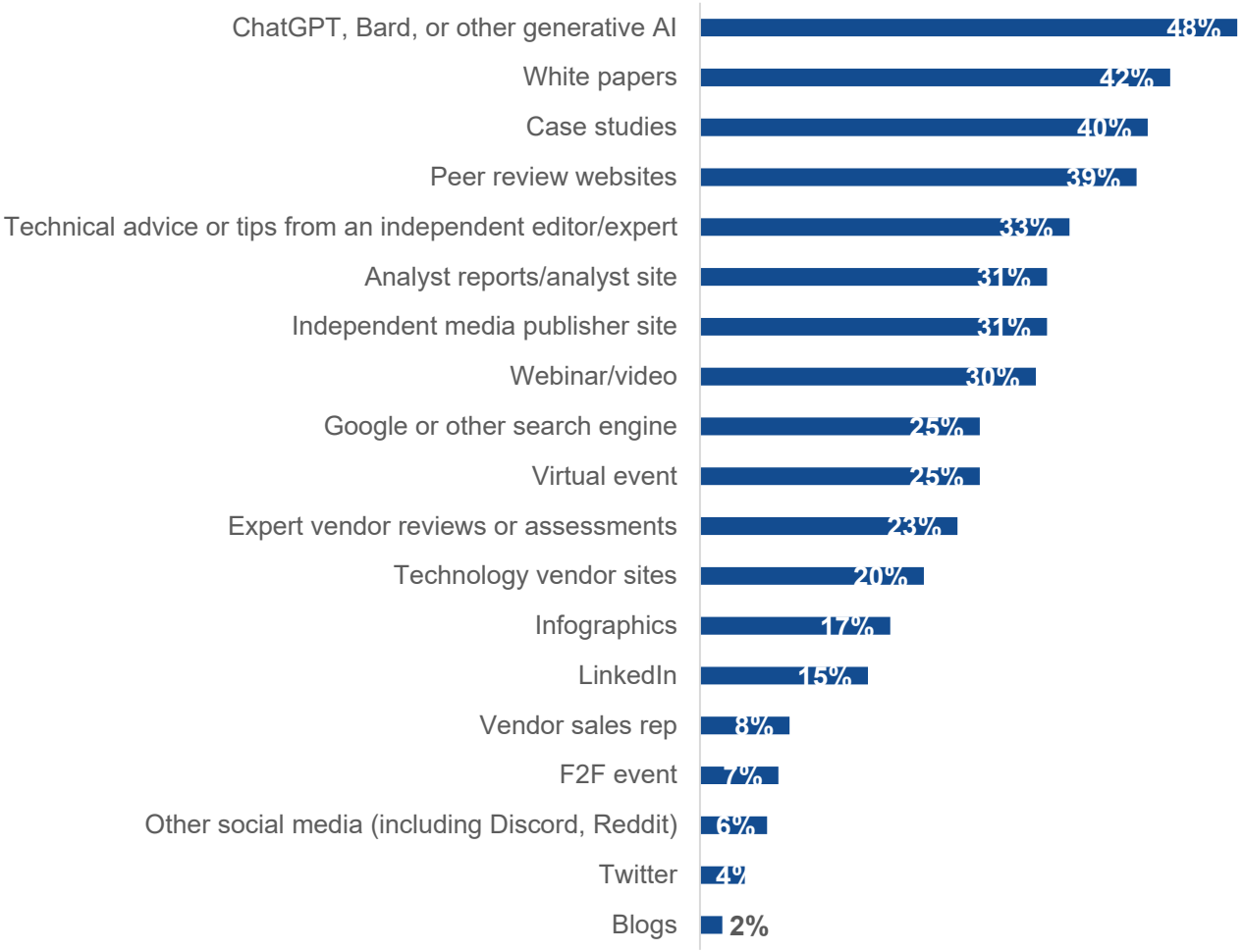
To Assess GenAI, Organizations Will Turn to…GenAI

For most technologies, actively using the technology itself when assessing its value and potential impact on the business is invaluable. Indeed, nearly half (48%) of organizations will turn to GenAI services to assess the technology (see Figure 15), but these assessments can have far different implications compared with, for example, using a rack server to test its ability in a data center environment. While it is generally wise for organizations to use GenAI tools to learn more about their capabilities, the reality is that ChatGPT, Bard, and other services are notorious for delivering hallucinations, which are inaccurate, fictitious, or otherwise flawed responses. Along with citing information from where the response is derived, vendors and service providers should continue to prioritize minimizing hallucinations and delivering greater transparency on how a response was formulated.

Of course, this will not be the only tool that organizations employ to assess GenAI, as organizations will also turn to white papers (42%), case studies (40%), peer review websites (39%), and other sources of information. Many of these will be critical to conducting well-informed, accurate assessments, particularly as GenAI continues to evolve across or alongside other technologies.

Figure 15. Organizations Will Lean on GenAI Itself to Assess the Technology

What types of information/media types would help your organization to assess generative AI? (Percent of respondents, N=670, multiple responses accepted)



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Conclusion

Just as many organizations were seeing light at the end of their digital transformation tunnel, GenAI exploded onto the scene in a highly disruptive fashion. However, this disruption is considered largely beneficial by organizations and capable of propelling those same digital transformation strategies well beyond their expected destinations. Time is of the essence, as GenAI laggards will likely face sizeable challenges in the form of competitors that did not wait to integrate GenAI into their ecosystems and reap its considerable potential. Teams will be disrupted, roadmaps will be altered, and longstanding processes will be heavily modified or even eliminated, but the disruption could yield highly lucrative returns.

To ensure their teams are aligned and prepared for the inevitable impact of GenAI, organizations should:

- **Act now on a well-informed, comprehensive strategy.** If organizations are waiting on GenAI solutions to mature before developing strategies and deploying technologies, they face imminent danger on two major fronts: competition and security. For every organization taking a wait-and-see approach, many of its competitors are likely diving head-first into GenAI to enable any possible competitive advantage. The time is

now to assess GenAI by testing the technology itself along with trusted third-party information sources. As part of this strategy, organizations should assess where GenAI stands in existing AI plans, look to fill any skills or expertise gaps, and prioritize pilot projects. Alongside these efforts, policies must be developed to ensure proper security, governance, and compliance guidelines are followed by employees both in pilot and production stages of GenAI rollouts.

- **Stress strategic alignment across the entire ecosystem.** The impact of GenAI will soon be wide-ranging and pervasive, underscoring the importance of aligning GenAI with strategic goals and ensuring all departments and functions are included in the GenAI strategy. Although many organizations anticipate multiple use cases for GenAI, prioritization will be key to ensure kinks are discovered and that the technology is used wisely before it is rolled out to other areas of the organization. Business unit leaders need to collaborate to discuss GenAI's short- and long-term potential and agree on prioritization for these pilot projects.
- **Temper short-term expectations while considering GenAI's immediate potential.** Can GenAI dramatically transform business processes and IT operations? Very likely. Will it? That depends on numerous factors, from existing AI strategies and skills to the effective execution of rapidly built GenAI strategies and policies. Just as organizations should prioritize areas within their ecosystems to pilot GenAI products or services, they should prioritize use cases. This can be tricky, as obvious areas for prioritization—for example, chatbots in retail organizations—might not be the ideal launchpad due to the early maturity of GenAI technologies. Broader, more universal use cases such as boosting automation or supporting data analytics might be a more reasonable place to start and develop real-world experience with the technology.
- **Invest time and resources in awareness and education.** Most organizations are still working to assemble teams and begin construction on GenAI strategies. In the meantime, teams should not be left in the dark, as "shadow GenAI" could easily emerge and wreak havoc across the organization. Set initial policies and encourage business leaders to assess the technology across all available information sources. GenAI hallucinations are real and dangerous, but they can be counterbalanced with third-party information sources that provide a real-world, fully human perspective on the technology.

Research Methodology

To gather data for this report, ESG conducted a comprehensive online survey of IT professionals from private- and public-sector organizations in North America, EMEA, APAC, and LATAM between May 31, 2023, and July 11, 2023. To qualify for this survey, respondents were required to be IT and business decision makers involved in generative AI initiatives at their organizations. All respondents were incentivized to complete the survey through cash awards and/or cash equivalents.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on several criteria) for data integrity, we were left with a final sample of 670 professionals.

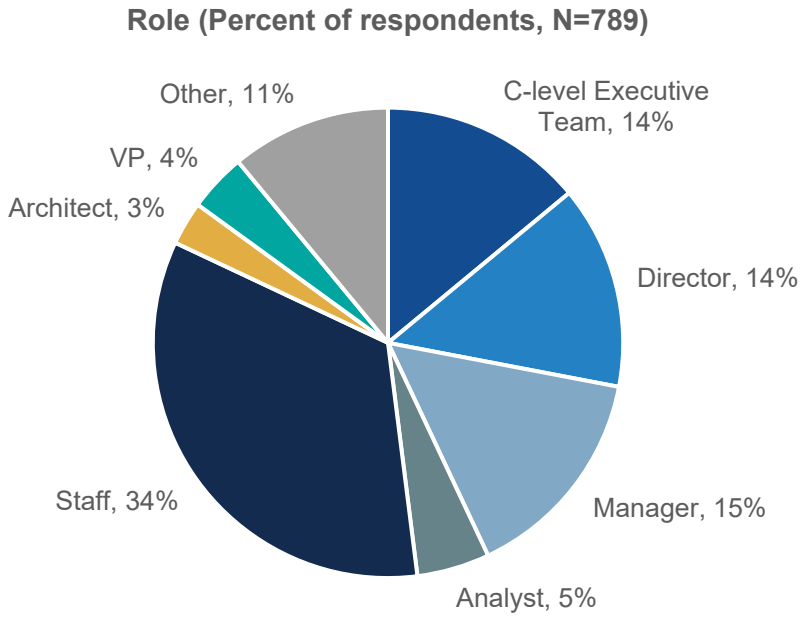
Please see the Respondent Demographics section of this report for more information on these respondents.

Note: Totals in figures and tables throughout this report may not add up to 100% due to rounding.

Respondent Demographics

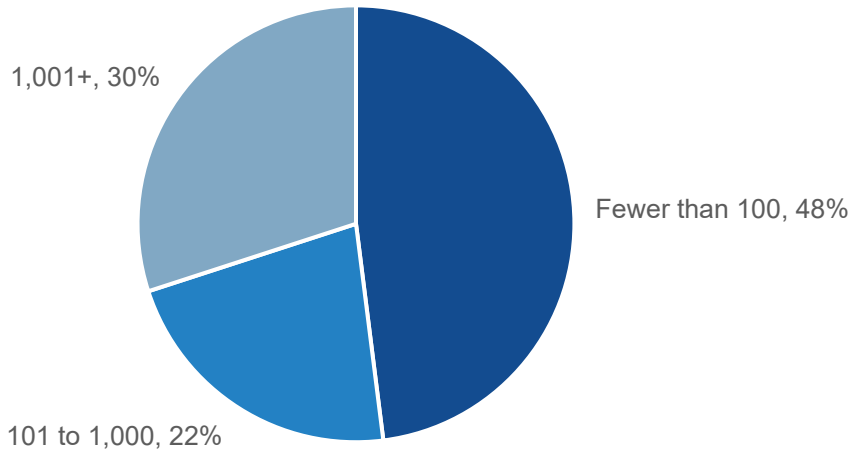
The data presented in this report is based on a survey of 670 qualified respondents. Figure 16 through Figure 19 detail the demographics of the respondent base at an individual and organizational level.

Figure 16. Respondents by Role



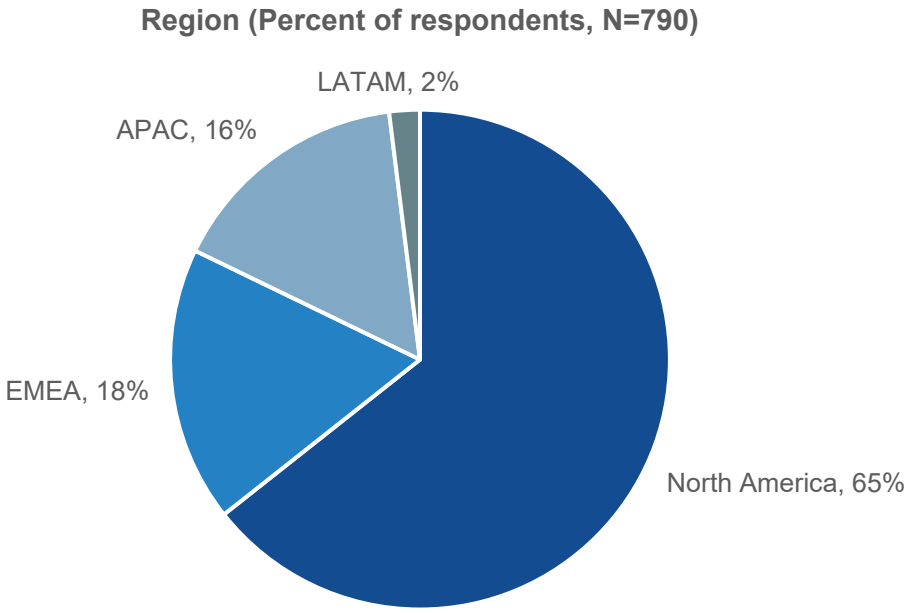
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 17. Respondents by Number of Employees



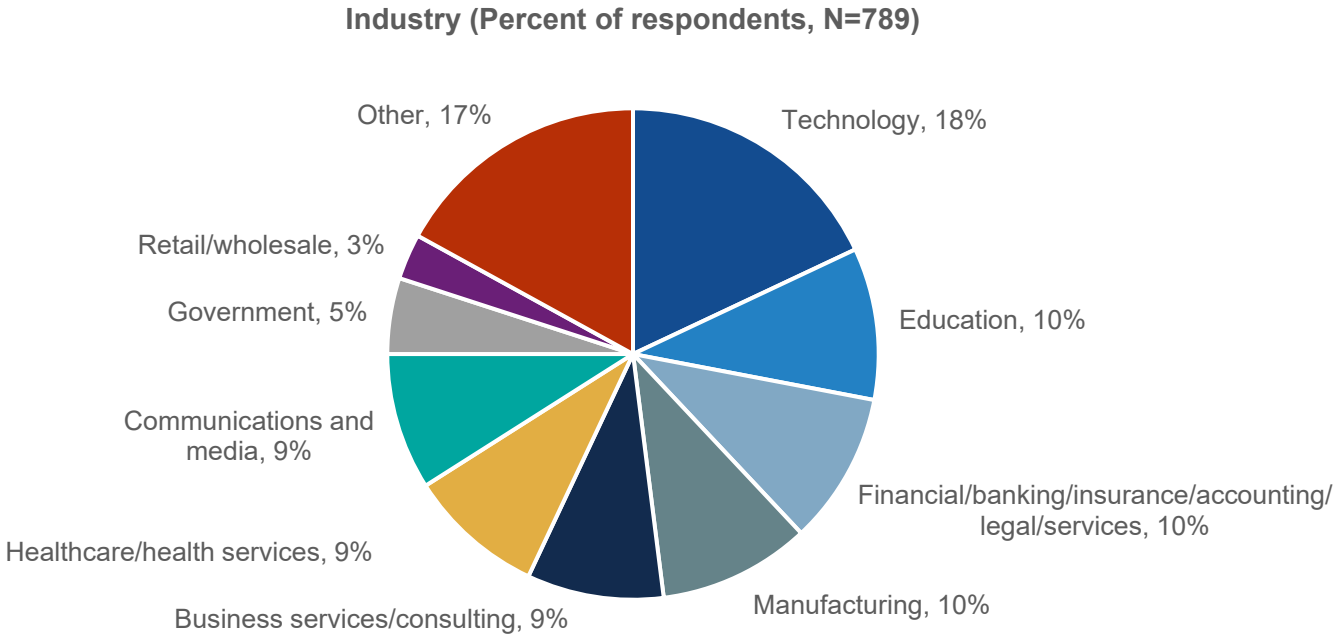
Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 18. Respondents by Region



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Figure 19. Respondents by Industry



Source: Enterprise Strategy Group, a division of TechTarget, Inc.

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TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

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