# Harvard Business Review
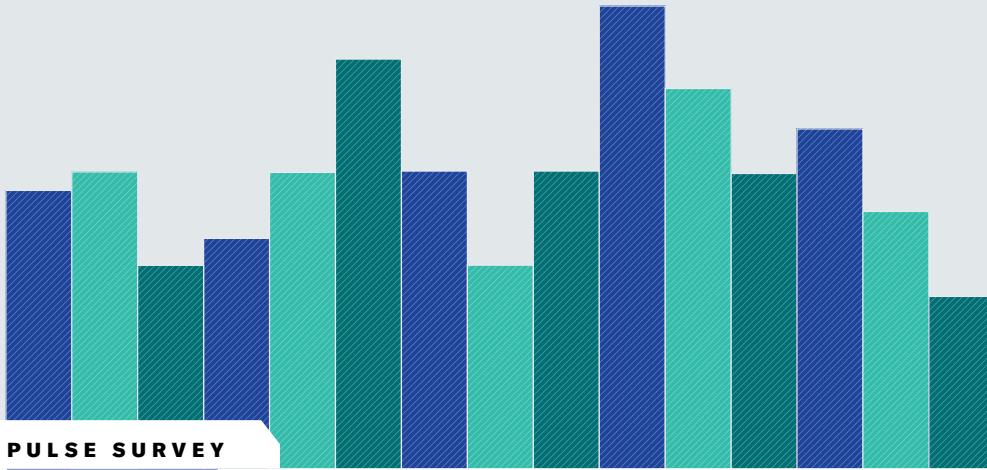
## ANALYTIC SERVICES

# Realizing the Generative AI Opportunity:

## Embracing Change to Create Business Value

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Generative artificial intelligence (gen AI) has sparked a revolution, and today's organizations are racing to unlock the technology's business value. Expected to reshape the economy over the next few years, gen AI will have a massive impact across all industries. Goldman Sachs forecasts a $7 trillion increase in global GDP and a 1.5 percentage point boost in productivity growth over a 10-year period. With this technology being set to impact two-thirds of U.S. and EU jobs, organizations are feeling pressure to keep up the pace. But how? What is the best way to implement gen AI to stay in the forefront and maximize ROI? And how do you do it securely and effectively?

One thing is for certain—there is no one-size-fits-all solution for gen AI, and there are multitudes of options. These include choosing between building or buying foundation models, exploring prompt engineering approaches, or developing custom gen AI solutions.

The human factor also plays a crucial role in gen AI implementation. Organizations face a skills gap as they rush to leverage this technology. Effective change management becomes essential to help employees embrace and effectively use gen AI tools. This change management involves training programs and creating a culture that supports innovation while addressing concerns about job security and technological change.

Navigating these complex decisions can be overwhelming, especially if you're just getting started. But as you progress in your gen AI journey, you'll gain insights into effective strategies and foundational components, leading to more structured, long-term solutions.

At AWS, we recognize the challenges in embracing this transformative technology. Organizations need guidance to select the right strategy—one that includes a plan for managing and mitigating risks associated with gen AI. In this process, support from AWS partners can be invaluable. These partners can offer expertise in implementing gen AI solutions, helping organizations overcome technical hurdles and develop effective change management strategies. They can also assist in customizing gen AI applications to meet specific industry needs and ensuring compliance with data privacy and security regulations.

While we offer a wealth of guidance at AWS alongside our partners, we also want to provide you with deeper insights. That's why AWS sponsored a report by Harvard Business Review Analytic Services to examine obstacles preventing organizations from fully adopting gen AI. In doing so, we aim to help readers like you accelerate your artificial intelligence journey responsibly and with confidence.

As you explore how to ideate, nurture, and leverage gen AI, you will become more adept at structuring solutions for repeatable success. The goal is to innovate while tackling the unique challenges that impact your productivity, efficiency, and customer experiences. We encourage you to leverage these resources and consider the ways in which organizations in this report have responded to gen AI. With these learnings, we hope you feel inspired and better prepared to harness gen AI and stay competitive in this rapidly evolving technological landscape.

# Realizing the Generative AI Opportunity:
## Embracing Change to Create Business Value

There is a great deal of expectation around how generative artificial intelligence (gen AI) will substantially transform businesses and create value. Broadly, gen AI describes artificial intelligence that learns from existing data to generate new, unique content, including audio, source code, images, text, and videos. Due to these humanlike capabilities, organizations in a wide variety of sectors around the world are planning to implement gen AI or are on the journey of piloting and scaling use cases. Embracing change is critical, as now is the time to extract value from gen AI and scale it to be truly functional—or else face the prospect of losing ground.

"Gen AI is not optional," says Abid Rahman, senior vice president of innovation at Chicago-based Eversana, a global provider of commercial services to the life sciences and pharmaceutical industry. "Every industry and every company should be looking at gen AI. If they don't, they're going to fall behind. It's really as simple as that."

While many executives believe it's important to adopt gen AI, organizations are not yet fully prepared to do so. In June 2024, Harvard Business Review Analytic Services conducted a global survey of 257 respondents from the *Harvard Business Review* audience, each involved in their organization's decisions about using, or not using, gen AI. The survey shows that while 60% of respondents believe gen AI is a priority for their organization, fewer (48%) say their organization is ready to adopt it. Survey results also surfaced an urgency to act, as a vast majority of respondents (83%) agree that if businesses in their organization's industry don't use gen AI, they will get left behind.

## HIGHLIGHTS

**83%** of survey respondents believe that if businesses in their organization's industry **don't use generative AI (gen AI), they will get left behind**.

**81%** say that gen AI is going to **transform their organization's industry**.

**60%** agree that gen AI is a **priority for their organization**, but fewer (48%) agree their organization is ready to adopt gen AI.

Due to rounding, some figures in this report may not add up to 100%.

> "Gen AI is not optional. Every industry and every company should be looking at gen AI. If they don't, they're going to fall behind. It's really as simple as that," says Abid Rahman, senior vice president of innovation at Eversana.

Kick-starting gen AI adoption efforts thus becomes a strategic imperative. But to meet the moment, organizations have to deal with the potential risks of gen AI—such as ethical, legal, cybersecurity, or customer impacts—which 56% of respondents say are the most prevalent barrier to expanding adoption of the technology.

According to Thibault Main de Boissière, machine learning platform lead at Canva, the online graphic design platform headquartered in Sydney, Australia, forward momentum on gen AI requires two elements: a calculated approach to risk and the ability to iterate quickly. "We are very conservative about how, when, and why we use customer data to train our systems, and we must be regulatory compliant. Safety is also a very important issue, and we are building layers upon layers of security around our AI systems," he explains. "At the same time, moving forward is all about building a good feedback loop, where you can try your ideas quickly, validate with users, get feedback, and send that feedback to the R&D team. And you must have some way to measure performance—and continuously measure it. This loop will help you show incremental improvements that can convince your stakeholders that you're going in the right direction— that's really critical."

This paper examines what may be holding organizations back from pursuing gen AI and how they can overcome these barriers and move forward with adoption and gain scale. Given that the approach to risk and change is a key component of the gen AI journey, the paper looks at how organizations accept and manage risk and how they prepare themselves and their employees for the change that gen AI brings. It also highlights best practices in diverse sectors, including health care and life sciences, design, and human resources, for ensuring that gen AI initiatives reap the intended benefits.

Edoardo Conte, the chief technology officer of Restworld, a Torino, Italy-based employment platform for the Italian hospitality industry, cautions that bad or hasty decision making is more of a risk than anything to do with technology going wrong. "In the startup world, we embrace risk every day. I don't see gen AI as risky in itself," he says. "It's only risky if you don't understand it. The ecosystem is evolving and changing very rapidly, and if you rush in on some solution which is not complete or not a good fit for you, it won't bring all the value you expect. You shouldn't add gen AI for the sake of it. Rather, start from a place of knowledge and proceed step by step."

## Get Prepared and Embrace Change

Despite the hype and expectations, the survey finds that most organizations are in the exploratory, consideration, or planning phases of gen AI adoption—but these plans have not yet led to widescale use. Sixteen percent of respondents say their organization has established one or more full-scale use cases. At the other end of the spectrum, only 7% say their organization is not moving forward with gen AI adoption at all. For the rest, it seems that the majority of organizations are still in the exploratory or early phases of gen AI use (49% are currently exploring or making plans for gen AI use, and 28% have one or more early use cases).

This relatively slow progress is perhaps linked to the state of gen AI readiness, as organizations are slightly more unprepared than prepared for gen AI. When asked to rate their organization's level of preparedness across six areas (employee skills/knowledge, technology infrastructure, data foundation, risk mitigation, gen AI guidelines, and organizational culture), between 32% and 54% of respondents say their organization is "prepared for gen AI." This response implies that around half—or more—are not confident their organization is prepared in any given area. And more respondents say that their organization is unprepared than say theirs is prepared across four of the six listed areas. The exceptions are tech infrastructure, where more feel prepared (54%) than unprepared (28%), and, to a lesser extent, data foundation (43% prepared; 39% unprepared).

## Closing the Technology-Knowledge Gap

Eversana's Rahman credits the organization's adoption of gen AI partly to its focus on change management. "In many ways, gen AI is probably the biggest technology shift that we've seen in our lifetime—at least as big as the internet. From that standpoint, preparedness and adoption require massive change management," he says. "We realized early on that we had to embrace gen AI in the right way, which means a focus on guidelines and training."

First, Eversana created guidelines for employees to make sure they use the tech in the appropriate way and understand what data can be used as inputs and how the outputs can be used. For the highly regulated pharmaceutical industry, compliance and human oversight are fundamentals that shape gen AI use. Second, the company took an ongoing approach to training. "The initial training covered what to do and what not to do but evolved quickly into sharing best practices and how to get more value from the tools. Within weeks, people got so much better at using gen AI tools. The technology-knowledge gap can be mitigated."

Eversana empowers divisions and service line teams to look at gen AI use cases and come up with their own solutions. One example: tools to assist clients with content approval for legal and regulatory purposes or to ensure compliance when handling clinical trial documents. "We have an internal AI council to approve all of those different ideas, and then we'll fund them appropriately to make sure we can pilot them with a view to moving from pilot to production with all the necessary checks and balances in place," Rahman explains.

Survey respondents indicate that their organizations are making similar efforts to boost gen AI preparedness through establishing guidelines. The most popular efforts being made, cited by just over half of survey respondents, are improving data/technology infrastructure (53%) and developing guidance and governance around gen AI use (53%). Additionally, around one-third are adjusting processes (35%), developing a change management strategy (33%), or addressing employee fears and concerns around gen AI (31%). **FIGURE 1**

Restworld took deliberate steps to aid preparedness and acceptance. "We held workshops to demystify some concepts about AI when we decided to integrate it into the platform," says Conte, the chief technology officer. "It was very important to get all the people involved to understand their part in guiding this tool and improving it and to know that they could give feedback and determine how they want the gen AI model to behave. The product requires iteration, and they have a voice in the process."

Conte describes the company's gen AI journey. "We don't offer software as a service to our clients," he says. "We have a team of recruiters who use our proprietary platforms and search our database of around 150,000 job seekers to find people who match our clients' recruitment requirements. Essentially, we started to use gen AI to create better matching algorithms for the recruiters to do their jobs."
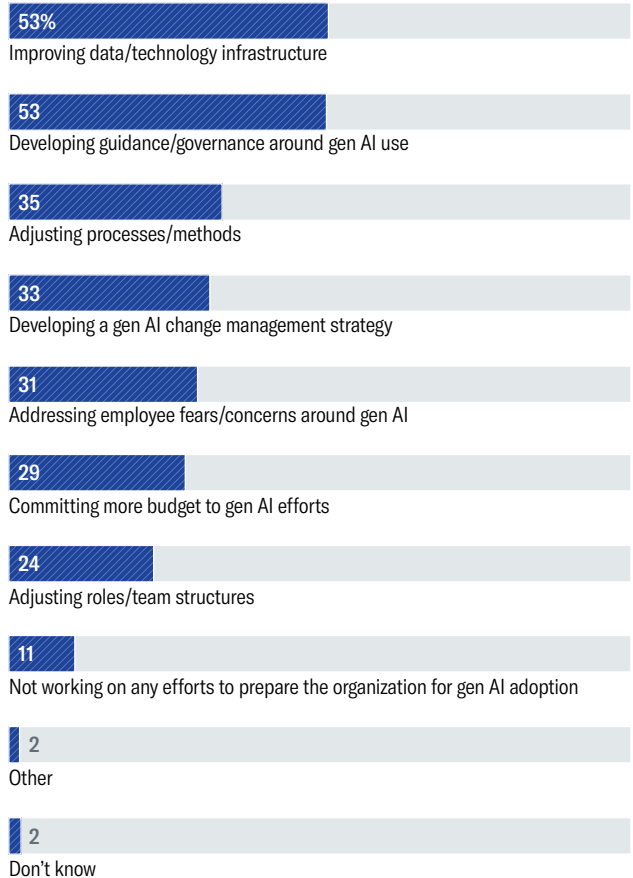
The company soon branched into developing its own gen AI solution, with the help of a partner. "I believe that to extract the biggest possible value for your company, you need to fuel gen AI with your proprietary data," Conte asserts. "But manipulating, creating, and implementing tools in-house can be tricky—you need a lot of research and experimentation.

FIGURE 1

## Spadework for Generative AI Adoption

Data/tech infrastructure and guidance for artificial intelligence use are key ways to prepare

What efforts is your organization working on, if any, to better prepare the organization for gen AI adoption? *Select all that apply.*



**53%**
Improving data/technology infrastructure

**53**
Developing guidance/governance around gen AI use

**35**
Adjusting processes/methods

**33**
Developing a gen AI change management strategy

**31**
Addressing employee fears/concerns around gen AI

**29**
Committing more budget to gen AI efforts

**24**
Adjusting roles/team structures

**11**
Not working on any efforts to prepare the organization for gen AI adoption

**2**
Other

**2**
Don't know

*Base: 257 respondents*

Source: Harvard Business Review Analytic Services survey, June 2024

That's why we found a partner to build a solution together so we can quickly see how it works and measure the value it generates."
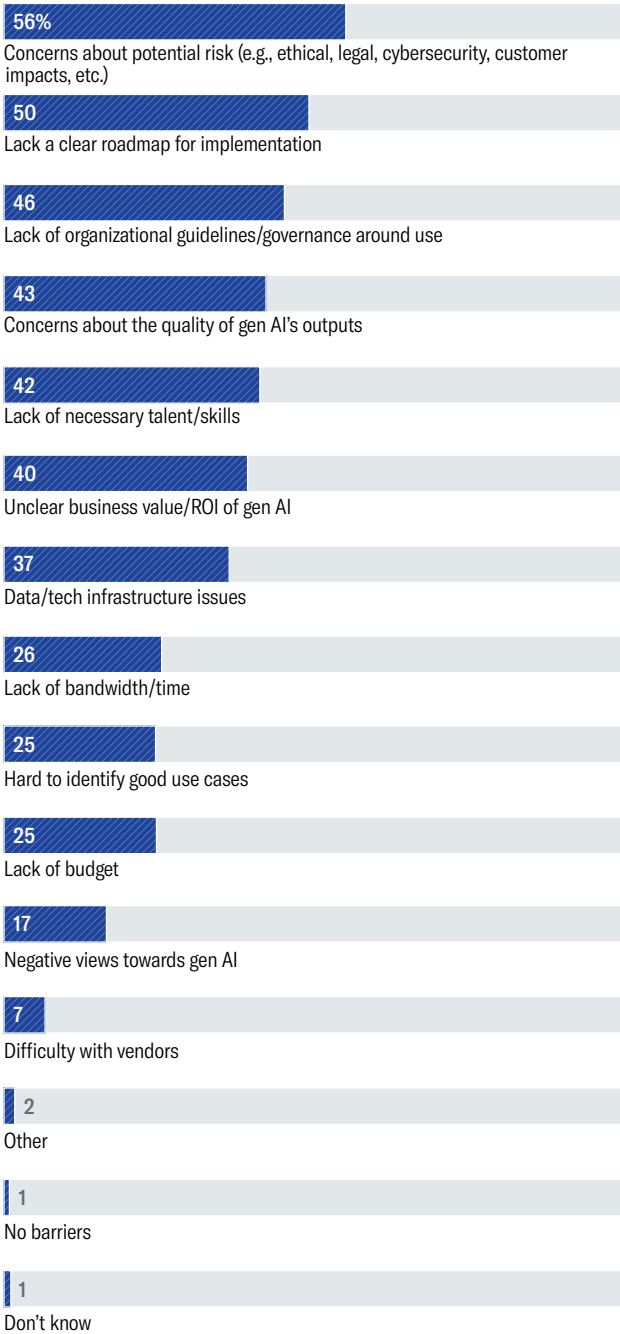
## Risk and Other Barriers

Barriers to scaling gen AI are varied, but concerns about potential legal, ethical, and cybersecurity risks are what keep most executives awake at night. It's understandable that almost all organizations face some barriers to expanding gen AI adoption (only 1% of survey respondents say they experience

FIGURE 2

## Risk Stands Out Among Barriers

Concern about various potential risks is blocking the way to gen AI adoption

What barriers, if any, stand in the way of expanded gen AI adoption at your organization? *Select all that apply.*

**56%**
Concerns about potential risk (e.g., ethical, legal, cybersecurity, customer impacts, etc.)

**50**
Lack a clear roadmap for implementation

**46**
Lack of organizational guidelines/governance around use

**43**
Concerns about the quality of gen AI's outputs

**42**
Lack of necessary talent/skills

**40**
Unclear business value/ROI of gen AI

**37**
Data/tech infrastructure issues

**26**
Lack of bandwidth/time

**25**
Hard to identify good use cases

**25**
Lack of budget

**17**
Negative views towards gen AI

**7**
Difficulty with vendors

**2**
Other

**1**
No barriers

**1**
Don't know

*Base: 257 respondents*

Source: Harvard Business Review Analytic Services survey, June 2024

no barriers), with various types of risks chief among them. But the lack of a clear roadmap for gen AI implementation (50%) and a lack of guidelines/governance for gen AI use (46%) are also high on the list. **FIGURE 2**

Many organizations have accepted the risks commonly associated with gen AI. While risk is the largest barrier to moving ahead, survey respondents seem poised to confront it, as 66% agree that "the benefits of gen AI outweigh the risks." Additionally, a large percentage of respondents (89%) agree that "organizational guiding principles are necessary to navigate the risks of gen AI," which may point to a way of overcoming risk concerns.

## Relying on Human Oversight

Chicago-based Cameo is an online platform and mobile app that allows fans to request personalized video messages from their favorite celebrities and enables brands to easily source celebrity-powered content for their ads. Cameo has a number of gen AI use cases, ranging from search functions to content generation, according to its chief technology officer, Dom Scandinaro. "One way we use gen AI is to summarize customer reviews on the talent profile pages on our website," he explains. "In a marketplace of about 50,000 celebrities, our goal is for the customer to have a clear understanding of what they are going to receive from the celebrity they engage with. Overwhelmingly, celebrities tell us that these AI-powered reviews are something they're so proud of, as they feel it embodies the work they've been doing on Cameo."

Cameo relies on human oversight to mitigate the risks of inconsistencies or errors. "Initial applications often are interesting and exciting, but when you try and scale them to tens of people, hundreds of people, thousands of people, you start to see output inconsistencies, hallucinations, or quality issues," says Scandinaro. "Humans always grade the output, and iterate and grade again, until we're happy with the consistency of the results. Then we do a human overview before we post anything to the site."

Another potential downside is that gen AI is not up to speed in the fast-changing world of celebrity. Many of the people customers search for may have risen to fame recently, for example on a reality TV show that aired a couple of weeks ago. But most gen AI models are trained on data that's a year and a half old. Cameo's solution is to draw on customer input to train their models. "After trying many different iterations, we realized that our customers write almost everything we need to know about the celebrity into the request instruction itself," Scandinaro says. "This data shows us what their fans love about them and specifically what they're booking the requests for. So, we started using that customer-inputted data to help our systems give all customers an easier journey of finding the right celebrity on our platform."

The survey shows that organizations are taking similar steps to mitigate the risks associated with gen AI adoption. According to the survey, the most prevalent actions organizations are taking to do so are ensuring regulatory/legal compliance (51%), developing gen AI usage guidelines (48%), and improving their data strategy (46%). The next-most-common measures include ensuring that a human verifies or quality controls gen AI output (35%) and providing risk-awareness training (34%). **FIGURE 3**

Despite concerns about risk, gen AI has been heralded as a groundbreaking technology capable of transforming industries and ways of working. Given that 81% of survey respondents agree with the statement "Gen AI is going to transform my organization's industry," there is a lot of expectation that gen AI will deliver on the hype. The survey shows that more than 60% of organizations that have moved forward with gen AI are hoping these efforts will deliver greater organizational productivity or employee efficiency, and anecdotal evidence reveals that organizations are already reaping benefits such as improved products and services and lowered costs.

## Offering New Features

Canva has several gen AI use cases and has already seen an uptick in the new features it can offer customers, as the technology can create images, graphics, and videos from text prompts. "There are two workstreams at the heart of our user experience. One is to inspire people, and once they've started, the other is to help them polish or improve their designs," says Canva's Main de Boissière. "For inspiration, we've developed Magic Design, a product where you type in an instruction to create a design, which will be automatically created for you. Second, if you want a presentation to look more professional, gen AI can help to automatically rearrange things, change fonts, and so on."

Main de Boissière notes that it's still very early days, but gen AI holds great potential. "At this stage, we've got about 10 to 15 Magic Design features, and it's interesting to see which ones are actually useful for customers," he explains. "Nothing is linear. We may see some features plateau for a bit or others take off quickly. The feature getting the most usage is the possibility to generate images—we've generated something like 1.2 billion or 1.5 billion images with those algorithms. Customers love it, but we are still not satisfied because we don't want it to be a novelty toy but a tool that becomes a core part of a customer's workflow. But results so far are encouraging, and we will continue to iterate and evaluate progress."

## Achieving Cost Savings

At Restworld, gen AI changed the nature of work and helped the company realize significant cost savings. "The jobs of our

A large percentage of respondents (89%) agree that "organizational guiding principles are necessary to navigate the risks of gen AI."

FIGURE 3

**Managing Risks of Gen AI**

Ensuring regulatory/legal compliance tops the list

What measures, if any, is your organization taking to manage the risks associated with adopting gen AI? *Select all that apply.*

- 51% Ensuring regulatory/legal compliance
- 48 Developing gen AI usage guidelines
- 46 Improving our data strategy (e.g., data quality, governance, integration)
- 35 Ensuring a human verifies/quality controls gen AI outputs
- 34 Providing risk awareness training
- 23 Appointing an executive or role to manage gen AI risk
- 19 Assessing systems for bias
- 11 None
- 8 Don't know
- 1 Other

*Base: 257 respondents*

Source: Harvard Business Review Analytic Services survey, June 2024

recruiters were transformed; instead of being the first line of contact and conducting interviews, they are now supervising how gen AI handles conversations with job seekers. Recruiting is transitioning into more of an analytics role," says Conte.

Recruiters now don't have to do all the interviews with applicants because gen AI handles the initial conversations via WhatsApp to gather contextual information about the candidate and the type of work they are looking for. These efficiency gains have paid off financially. "We've lightened the load for our recruiters, saving them from having to conduct between 10,000 and 12,000 conversations a month. We're still assessing the numbers, but it could come to cost savings of around 20%."

Organizations are excited about gen AI and indicate that they hope to achieve a wide range of benefits from its implementation. Of those survey respondents who say their organization is moving forward with gen AI (i.e., those exploring, considering, or planning or who've launched gen AI use cases), greater organizational productivity (63%) and greater employee efficiency/speed (63%) stand out as the leading benefits they're most hoping to achieve, followed by enhanced innovation (48%), better customer experience (45%), cost savings (44%), and greater competitive advantage (43%). **FIGURE 4**

## Next Steps on the Gen AI Journey

Managing risk stands out as a milestone that organizations need to reach on their gen AI journeys. But there are other best practices that those working in the field have shared that can help organizations reap gen AI's benefits.

*Drive adoption from the top.* "From an executive standpoint, the optimism for gen AI technology should come from the top down," says Rahman. "For progress on implementation, you need the right mindset that can set the stage for all the activities that need to happen—the right type of experimentation and the right type of training. And these require investment, which needs to be planned for."

*Build feedback loops.* According to Main de Boissière, gen AI initiatives need to be iterated and refined if they are to succeed, and this process requires a rigorous feedback loop. "In traditional deterministic systems, it was much easier to design tests to make sure that the model was behaving as expected," he says. "But large language models and gen AI are probabilistic and change over time, so previous ways of testing may not catch the same quality or risk issues as before. The most important thing is to build a constant evaluation and feedback loop so you can refine at every step of the pipeline."
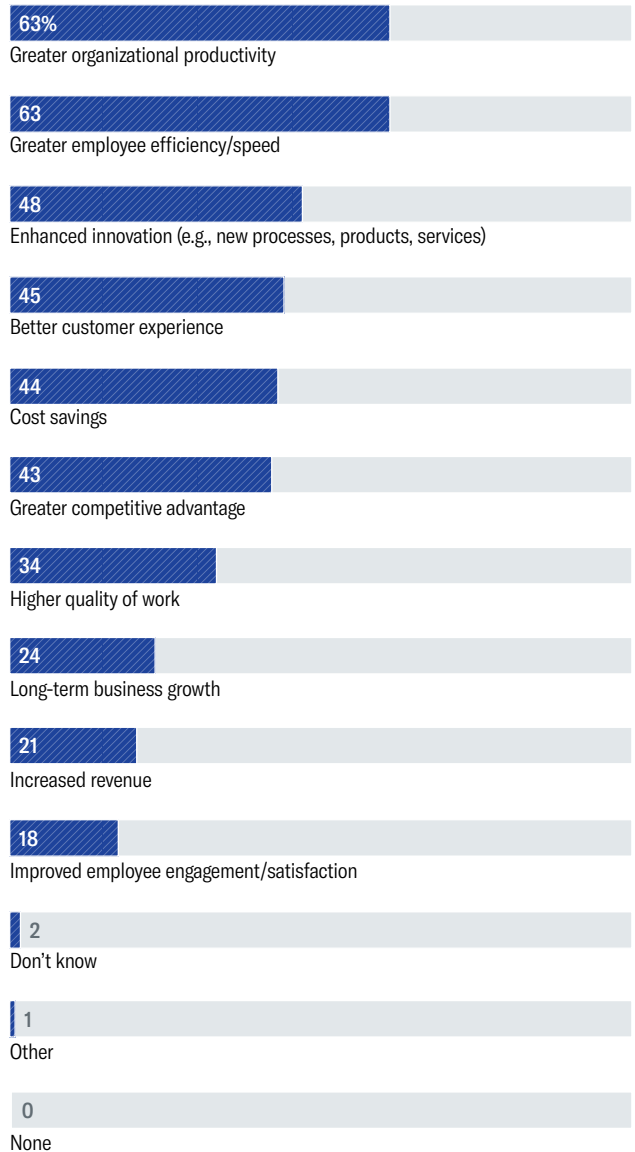
*Be prepared to fail quickly.* Cameo takes an agile approach to gen AI initiatives, and, according to Scandinaro, it's important to know when something is not working as expected—and to move on. "We like to try new things and

FIGURE 4

### The Gen AI Benefits Wish List

Organizations most hope to achieve productivity and efficiency gains

What benefits does your organization most hope to achieve from implementing gen AI? *Select up to five.*

- **63%** Greater organizational productivity
- **63** Greater employee efficiency/speed
- **48** Enhanced innovation (e.g., new processes, products, services)
- **45** Better customer experience
- **44** Cost savings
- **43** Greater competitive advantage
- **34** Higher quality of work
- **24** Long-term business growth
- **21** Increased revenue
- **18** Improved employee engagement/satisfaction
- **2** Don't know
- **1** Other
- **0** None

*Base: 240 respondents whose organizations are moving forward with gen AI (either exploring, considering, or have plans for gen AI use, or have launched one or more gen AI use cases)*

*Source: Harvard Business Review Analytic Services survey, June 2024*

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Edoardo Conte, chief technology officer, Restworld
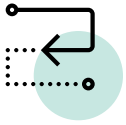
"Does it really make sense to continue to do the same type of work in the same way as before? Organizations need to assess what they can change in terms of processes and the bigger picture if they want to fully reap the benefits of gen AI," says Rahman of Eversana.

quickly get to a minimum viable product," he says. "If we see positive signals that the application could fit with our technology and our data, we'll iterate and continue to invest time and resources. If not, we'll fail quickly and move on."

***Choose your gen AI partners carefully.*** Choosing a company to bring expertise or technology to gen AI efforts is a major consideration. Rahman describes Eversana's approach: "First, we have to look at partnerships from a long-term perspective. We want to know if a company has a good track record in gen AI technologies, but we also look at their roadmap, their plan, and their vision to ensure that it aligns with ours. We assess whether they are willing to invest and partner with us in the right way that will lead to a win-win situation."

***Culture fit is important.*** Scandinaro notes that culture is as important when choosing a gen AI partner as it is when hiring an employee. "Culture is really important to us," he asserts. "Our brand is fun, and many of the people who work here enjoy celebrity culture and pop culture. When choosing an external partner, remember that you're going to be in meetings and conference calls with them for many hours every week while you problem-solve difficult issues together. So, you need to enjoy working with them, too."

***Share experiences.*** "You need to have an understanding of how gen AI works if you're going to invest and change your business model," says Conte. "It could be helpful to see how other companies are doing it, what they've experimented with, what has worked and what hasn't. Find meetings, find groups of people on the same path so that you can share experiences—because when it comes to gen AI, everyone is new here."

## Conclusion

By many accounts, gen AI has the potential to completely transform industries and organizations—and those not exploring its use could be left behind. However, implementing gen AI may not be an easy journey, as several obstacles stand in the way.

Organizations are overcoming barriers, most notably concerns about the risks associated with gen AI, and exploring innovative use cases that show early signs of delighting customers and translating into efficiency gains and cost savings for businesses. The first step in the journey has often been to embrace change, especially when it comes to risk management, and prepare the organization and its employees for gen AI adoption. Setting guidelines for gen AI use has been helpful for many in this process.

Rahman believes gen AI's most important benefit is the ability to change the type of work that people do. "Gen AI is a tool. In fact, it's a superpower," he says. "It allows people to do things that used to be very difficult or that they had no aptitude for—quickly and efficiently," he says.

"This power gives executives an interesting choice to make about the future of work," he continues. "One mindset is 'Let's use gen AI as a tool, as a superpower for efficiency,' and the other is 'Let's think differently now that we have this available to us,'" Rahman notes. "Does it really make sense to continue to do the same type of work in the same way as before? Organizations need to assess what they can change in terms of processes and the bigger picture if they want to fully reap the benefits of gen AI."

Harvard Business Review Analytic Services surveyed 257 members of the Harvard Business Review audience via an online survey fielded in June 2024. Respondents qualified to complete the survey if they were involved in their organization's decisions about using, or not using, generative AI.

### Size of Organization

**30%**
10,000 or more employees

**31%**
1,000–9,999 employees

**7%**
500–999 employees

**24%**
100–499 employees

**8%**
50–99 employees

### Seniority

**28%**
Executive management/ board members

**38%**
Senior management

**26%**
Middle management

**7%**
Other grades

### Industry Sectors

**14%**
Manufacturing

**12%**
Technology

**11%**
Financial services

**10%**
Government/ not-for-profit

All other sectors less than 9% each

### Job Functions

**21%**
General/executive management

**8%**
Marketing/PR/ communications

All other functions less than 8% each

### Regions

**39%**
North America

**21%**
Europe

**20%**
Asia Pacific

**12%**
Latin America

**7%**
Middle East/Africa

Figures may not add up to 100% due to rounding.

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